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NUMBER 686 FEBRUARY 1954 FIVE SHILLINGS



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MARGINALIA

Historic Buildings Councils

An essential step in the implementation of the Historic Buildings Act has been taken with the appointment by the Minister of Works of the three national councils on whom much of the responsibility under the Act will devolve. The Historic Buildings Council for England will have as its chairman Sir Alan Lascelles, and its members include Sir William Holford, Mr. Christopher Hussey and Mr. John Summerson; the Welsh council is to have Captain G. C. H. Crawshaw as its chairman, and the Marquess of Anglesey and Mr. S. Colwyn Foulkes among its members; while the council for Scotland, meeting under the chairmanship of the Earl of Dundee, will include Professor Robert Matthew.

Since these councils are the authorities to whom application for grants of money must be made, their effective relationship to the source of the funds of which they dispose—the Ministry of Works—is of interest. In each case the secretary of the council will be a member of the Ministry of Works staff; Mr. C. D. E. Keeling in the case of the councils for England and Wales, and Mr. David Watson for the Scottish council. This arrangement should give very direct liaison between the councils and the minister and will, one hopes, promote maximum effectiveness in the carrying out of the provisions of the Act.

Statues and Ruins in Holland Park

The LCC's third open air exhibition of sculpture will follow the same general lines as those of 1948 and 1951 as far as the selection of the exhibits is concerned, but will break new ground, literally, in its site, for instead of the artfully informal glades of Battersea Park, the setting this year will be among the more varied scenery of Holland Park in Kensington. In these surroundings, which include natural woodland, formal gardens, and semi-architectural backgrounds, it should be possible to make a personal observation of the principles of open-air siting discussed by Robert Melville in his article on pages 87 to 95, and judge the comparative performance under these conditions of the works of Henry Moore, and such other masters as Marini, Chadwick, Giacometti, McWilliam and Hepworth, to name only a small proportion of the sculptors whose work it is hoped to show. The exhibition will be open from May until September, but it is to be feared that the summer's sculptural delights will be severely tempered by architectural regrets since the LCC have now announced that their original plan to conserve the ruins of the house *alla rovinosa* (AR March, 1953) will not be

implemented. The sum of £15,000 allotted for this work will not suffice, apparently, to render the building safe even as a picturesque eye-trap, and will only cover the making good of the arcades of the southern façade—the rest of the house will be cut back to its ground plan. The visual consequences of this will undoubtedly be far graver than the LCC have so far admitted. The arcades will now be reduced to pergola status and will no longer register as parts of a house; by the same token the loss of height will completely alter the visual qualities of the site and deprive the park itself of a focal centre (compare Ravenscourt Park, heartless and aimless without the house). Desperate remedies are unlikely to carry much weight with the LCC, but (if nothing can be done about the inadequate budget) have their advisers considered the possibility even of losing some of the arcading in order to keep some of the height of the frontispiece?

Architectural Studies in York

The report of the York Academic Development Committee for 1953 is concerned chiefly with the opening of the Borthwick Institute of Historical Research, in St. Anthony's Hall, one of those buildings which are Gothic Tudor below the string-course and a kind of restrained Mannerist Tudor above, and can be paralleled in other cities of eastern England—the Jew's House in Norwich, for instance. The Borthwick Institute is intended primarily for



St. Anthony's Hall.

document research on archives pertaining to the See of York, but the building itself will house some of the Summer Schools and other study courses, which are the best-known part of the Academic Committee's activities. This year's programme of architectural studies has become so wide and complex, including care and protection of ancient buildings, the drawing and sketching school for architectural students, a general course on the history of English architecture, and one on garden design, that these activities have been regrouped as the York Institute of Architectural Study, and all enquiries about them should be addressed to: The Secretary, St. Anthony's Hall, York.

Exhibition of Spanish Architecture

The exhibition of contemporary Spanish architecture held recently at the Building Centre was a disappointment. There were

hardly more than two or three buildings on show which, for an architect in this country, could have been of any value to see. The two most modern designs—a very characteristic sign of general backwardness—were, moreover, the engineer's rather than the architect's designs, the squash courts, No. 81, at Madrid and the stadium, No. 71, at Madrid. The name



Hotel at Barcelona by Antonio de Moragas Gallissa; one of the buildings at Barcelona designed by a member of the R-Group and not shown in the exhibition.

of the engineer, Tortoya, was not given in the catalogue. Here, one felt in looking at the photographs exhibited, was a country whose architecture reflects deliberate political reaction and less deliberate cultural isolation. However, to those who know the state of building in Spain a little more intimately,



A house by Jose M. Martorell and Oriol Bohigas, another noteworthy building which did not appear in the recent exhibition of contemporary Spanish architecture.

conditions cannot really appear quite so sinister. The fault was not so much the architecture's as the exhibition's. Barcelona, the most progressive city of Spain, was to all intents and purposes left out, and what is most interesting at Barcelona, the work of the R-Group, entirely. Yet amongst the buildings designed by its members there are several which, if shown in London, would have given one a somewhat more optimistic impression.

Frescoes in the Tower

During structural repairs in the Tower of London it was discovered that a beam in the Byward Tower had an elaborate painted decoration of birds and heraldic motifs. Subsequent detailed examination of the wall surfaces of the room has revealed a fourteenth century mural of considerable quality, and it is thought likely that other walls will prove to be similarly decorated. What has been uncovered so far appears to be an abbreviated or partial Last Judgement, though the figure of Christ is missing, as a result of a fireplace having been inserted in the centre of the wall. The colours are bright and mostly well-preserved, and the figures so far uncovered and identifiable include the Virgin, the archangel Michael and a possible John the Baptist. Work is still proceeding in the room, but it is hoped that it will be possible ultimately to make these important works accessible to the public.

INTELLIGENCE

Mr. Ewart T. A. Smith, at present Deputy County Architect, Lancashire County Council, has been appointed County Architect, Kent County Council, in succession to Mr. Sidney H. Loweth, who will be retiring in April.

154 applications were submitted for General Editor of the Survey of London; Mr. Francis H. W. Sheppard, Assistant Keeper in the London Museum since 1948, has been appointed.

600 entries were received by the Uganda Electricity Board competition for a new Head Office building in Kampala. The assessor, Mr. N. L. Hanson, has given first place to E. I. Graaf, of Johannesburg.

The Historic Churches Preservation Trust has set up advisory panels of architects to advise them when grants are to be made. The panel is on a regional basis and covers the whole country.

Mr. Mark Hartland Thomas has resigned from the Council of Industrial Design to devote more time to the study of modular co-ordination and to resume his private practice as an architect and industrial designer.

The Secretary of State for the Colonies has set up a Colonial Housing and Town Planning Advisory Panel consisting of the Hon. Lionel Brett, Professor R. J. Gardner-Medwin, Mr. Desmond Heap, Sir George Pepler, Sir John Wrigley, Sir William Holford and Mr. G. A. Atkinson.

Kent County Council has appointed Mr. E. T. A. Smith to be County Architect in succession to Mr. S. H. Loweth. Mr. Smith was Deputy County Architect with the Lancashire County Council.

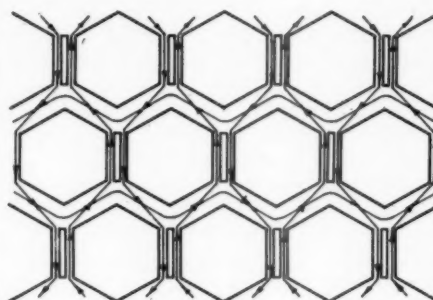
CORRESPONDENCE

Traffic Circulation

To the Editors,

THE ARCHITECTURAL REVIEW

SIRS,—The idea of time compensating for space is desirable in traffic planning.



Enclosed is a diagram suggesting my idea of a beehive circulation system, probably for centralized city planning. To some extent, it preserves both the flowing continuity of the parkway system and the direct access to the 'blocks,' which is the advantage of the old chess-board system.

The 'zig-zag' in the diagram is a price worth paying, while the length of 'street' required for 'Tangential intersection' of circulation is a problem for further study.

Yours, etc.,

AMOS I. T. CHANG.

Princeton, New Jersey.

The Critic's Task

To the Editors,

THE ARCHITECTURAL REVIEW

SIRS,—Having heard and read Mr. Jordan's BBC talk* on 'The Task of the Critic of Architecture,' I am left wondering how many people agree with his ideas.

That critics should exist to criticize artistic endeavour is not surprising, for at all times people have liked to guide others; especially in morality and art.

That people react immediately to art as they do to group symbols is unlikely. The equivalent of the fertility god is not a Brancusi but the Holy Cross. It is the difference between a Crucifixion by Michelangelo and a crucifixion from the book shop. A group symbol may be a work of art or it may not. Whereas with the latter we share a direct emotional response, with the former we respond to a complex presentation, related to our own experience.

The idea that all Greek temples and Gothic cathedrals are good architecture is as nonsensical as the thought that little of merit was produced between 1600 and 1900.

The 'pulse of life' appears more difficult 'to touch' than is imagined. 'The use of contemporary methods to solve contemporary problems' is a cry not only heard in architecture but in the Civil Service downwards. Yet adding machines and bulldozers are not considered sculpture, and our efficient public lavatories are not catalogued as architecture.

What is obviously wanted by Mr. Jordan is one period, one style, produced by his 'principle.' Unfortunately, I would suggest that the problems

* *The Listener*, 19.11.53.

of any time do not contain a single solution but many. The brilliant aircraft designer is an applied scientist producing one approach to a solution. An artist relates one facet of existence.

'A brilliant team of acoustic experts' do not produce with their colleagues a great work of art unless one of their colleagues happens to be a great artist and in control. The great of today are not the LCC and Hertfordshire County Council but Le Corbusier, F. L. Wright, etc. The mania for group work and social endeavour replaces Jones, Wren, Vanbrugh and Soane by Elizabethan mansions, Georgian squares and Bath.

Mr. Jordan recognizes the difference between architecture and building; he should accept the difference between the competent and the great.

Yours faithfully,

Westcliff, Essex.

ANTHONY JACKSON.

Mylne at Enville

To the Editors,

THE ARCHITECTURAL REVIEW

SIRS,—I think I may be able to add to the confusion concerning Enville Hall (History, AR September), for the year following Sir W. Chambers' design, the Earl of Stamford engaged Robert Mylne to prepare a scheme for the house.

Mylne stayed at Enville from July 3-6, 1773, and on the 30th of that same month sent the Earl 'a sketch of a house & offices for Enville (sic) & a plan of the principal floor.' I quote from Mylne's diaries.

He again visited Enville on June 27, 1774, when he 'surveyed the situation of the house. Fixed on a new site for the house, etc. & took directions for making a plan.' This resulted in the despatch on October 19 of 'a design—sent to Lord Stamford—for a new house at Enville—consisting of 5 plans & 1 elevation, all washed neat & large.'

Since in April, 1775, Mylne received 'from Lord Stamford in full £64-10-0' presumably his design joined that of his predecessor—or did Hope execute Mylne's plan?

Yours, etc.,

Hampstead.

CHRISTOPHER GOTCH.

ACKNOWLEDGMENTS

COVER, Henry Moore. MARGINALIA: St. Anthony's Hall, *Yorkshire Gazette*. FRONTISPIECE: Gordon Cullen; HENRY MOORE, pages 87-95; all photos by Henry Moore. GRASS ROOTS, pages 101-111: 1, 3, 7, 10, 11, Paul Popper; 9, U.S. Information Service. VANBRUGH'S SMALLER HOUSES, pages 118-122: 2-4, 8, 9, Victoria and Albert Museum; 10, Record and General Photographers. CURRENT ARCHITECTURE, pages 123-6: *Cinema in London*, John R. Pantlin; *Secondary School at Stanford-le-Hope*, Edward Leigh; *Research Building, Glasgow*, J. Roman Rock; *Housing at Esher*, John R. Pantlin. MIDLAND EXPERIMENT, pages 127-131: drawings by Gordon Cullen; photo by Aerofilms. MISCELLANY, pages 132-134: *Exhibitions*, 1, Royal Academy of Arts; 3, John Underwood; 5, Wallace Heaton; *Townscape*, 1, Richards Arphot; 2, McCallum Arphot; 3, Marcus Whiffen. SKILL, pages 137-152; *Design Review*: 1-21, 24, 27-32, 35, 37, 38, Read Arphot; 22, 23, 25, George G. Miles; 26, Vince; 33, Scottish Studios; *Fenestration*: 8, Michael Printz, 11, Kingston Brothers, 13, Henry Hope.

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THE ARCHITECTURAL REVIEW

Volume 115 Number 686 Feb 1954



This month's cover shows head-and-shoulder details of a reclining bronze figure by Henry Moore commissioned for the terrace of the Time-Life Building in London. As the camera closes up from the general to the particular view, the worked and manipulated surface of the bronze reveals a quality like a wild mountain landscape—a kind of mirror of the problem of sculpture's relations to its landscape setting. This problem, which has occupied Henry Moore for many years, gains emphasis from the forthcoming exhibition in Holland Park and Henry Moore's one-man show at the Leicester Galleries (opening February 11th), and is discussed in its more general aspects in Robert Melville's articles on pages 87-95.

83 Marginalia

84 Correspondence

84 Acknowledgments

86 Frontispiece

87 Henry Moore by Robert Melville Exhibition in the open air has been termed a test of sculptural quality, a test which even some noted statues cannot really pass, but Henry Moore has expressed a positive preference for landscape settings for his works and this has been taken by Mr. Melville as the text for his discussion of the recent work of Henry Moore and its relationship to its surroundings. The installation of Moore's important group, the *King and Queen*, in the Middelheim Park in Antwerp, provides a practical example of sculpture in a formal green setting, while the *Standing Figure* which was shown at Battersea and now stands on a rocky site in Dumfriesshire is an example of a figure in an informal setting, and the Time-Life sculptures are a working example of sculp-

ture related to architecture in two different manners. Examining the nature and performance of these works in their settings, Mr. Melville concludes that modern sculpture, which does not function in a sacred or symbolic manner, and will not function as architectural decoration, must be treated as if it were a free community of presences existing at strategic points in our lives.

97 Hotel at Lusaka, Northern Rhodesia Architect: G. A. Jellicoe

101 Grass Roots: Huts, Igloos, Wigwams and other Sources of the Functional Tradition by Alan Houghton Brodrick

A great part of the world's population still lives in caves, huts, thatched shelters and cabins which, for one reason or another, they build with their own hands in a simple and undecorated manner which may be called the real origin of the Functional Tradition. The forms of these dwellings are as diverse as the cultures which use them, and Mr. Brodrick's article surveys the circumstances and areas in which such simple and autochthonous houses may be found, while the photographs and sketches on the pages which follow exemplify the variety of materials and structures which may be found in different parts of the world. Through all the varieties of dwelling will be found two constant themes; simplification of the shelter unit, and maximum exploitation of the materials and techniques, however primitive, of which the builder disposes. Primitive societies live at the upper limit of their technological resources, civilized societies live, on a statistical average, well below theirs, and can therefore learn much that is useful and necessary from their less well-equipped brothers of the tropics, the Arctic and the steppelands.

112 Gramophone Shop in London Tayler and Green: Architects

116 Cleaners Shop in Lowestoft Tayler and Green: Architects

119 Vanbrugh's Smaller Houses by Laurence Whistler In small buildings the Vanbrughian concepts of movement and mass are transformed into a system of emphasis, where every part is clearly marked off and given its full value—an original, confident handling of the problems of small scale design. In this reduced compass Vanbrugh turns away from the Baroque idiom of his large compositions, and employs instead a castellated manner—producing a kind of toy fortress effect which is very different from the sentimental and religious Gothick of the later eighteenth century.

Though this manner produced no major works of art, it did produce a number of satisfactory minor ones, which Mr. Whistler's article surveys, and some of which survive, like his own house at Greenwich—while others are now only drawings, like those in the recently discovered sketches and designs at the Victoria and Albert Museum.

123 Current Architecture

127 Midland Experiment: Evesham by

Gordon Cullen The third of the townscape studies undertaken by the ARCHITECTURAL REVIEW in collaboration with the Birmingham University Extra-Mural Board deals with Evesham, a riverside town with a riverside park and a high street which, though overlong, is diverted from its tendency to run grimly parallel to the river by the churchyard which stands across its route. From this disturbance, there originates an embryonic pedestrian network which could be developed to run naturally from the river to the park, from the park to the churchyard, and thence to the town square and to the high street, and Mr. Cullen proposes various ways of enhancing the character of this townscape sequence.

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Author *Alan Houghton Brodrick* was Joint Secretary-General of the International Congress of Anthropological and Ethnological Sciences 1934-38; Associated with the work of the Musée de l'Homme, Paris, since its inception. Publications include: *Little China* 1942; *North Africa* 1942; *Parts of Barbary* 1944; *Beyond the Burma Road* 1945; *Early Man—A Survey* 1948; *Lascaux* 1949; *Chinese Painting* 1949; *Pillars of Hercules* 1950.

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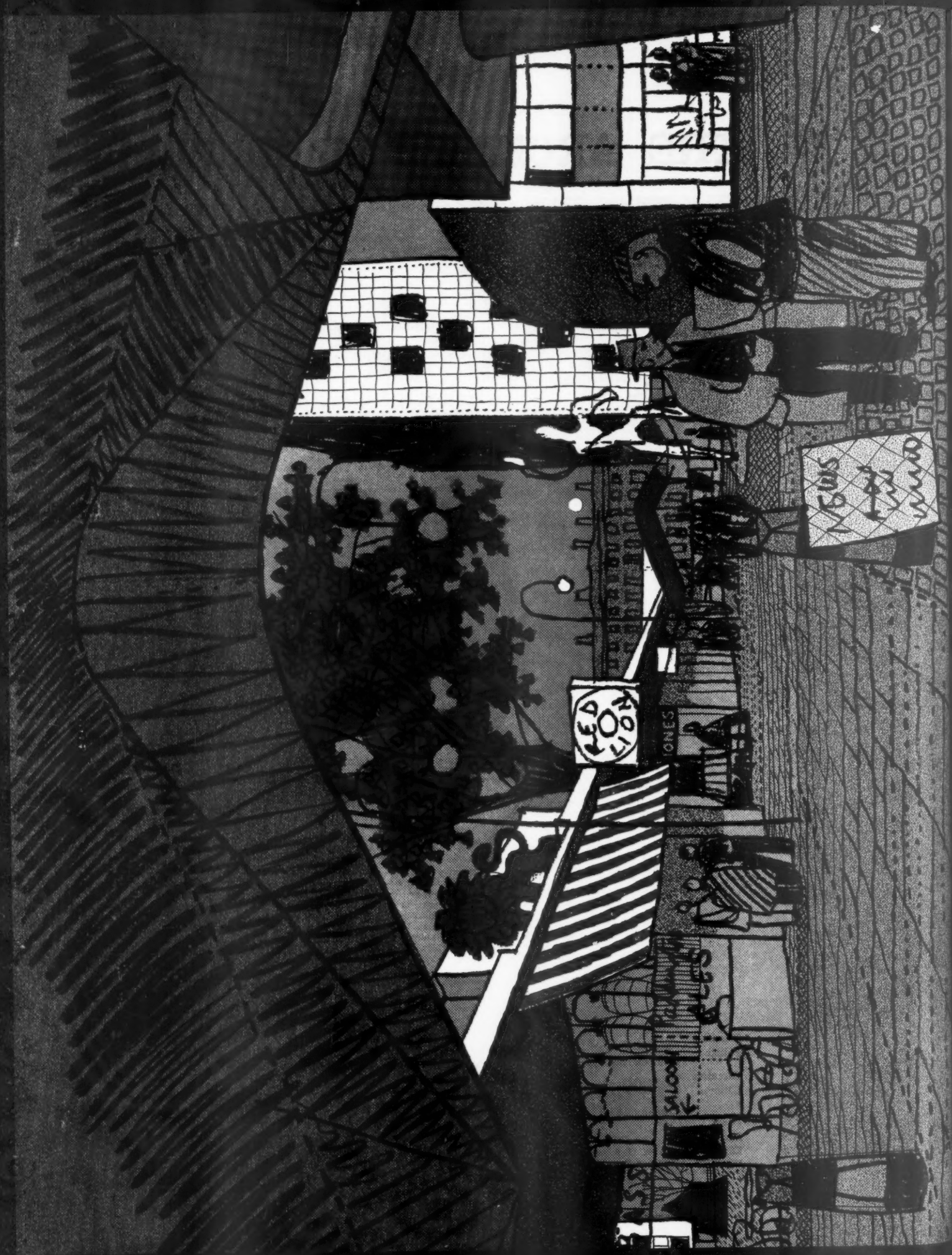
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FIVE SHILLINGS



The Hallfield housing scheme in Paddington, the work of Tecton, Drake and Lasdun, is one of the most important of London's post-war developments, and will be fully illustrated and discussed in a later issue of THE ARCHITECTURAL REVIEW. One of its most interesting features will be the attempt to provide a focus for the Hallfield community's social life by creating a Forum in the very heart of the area. This paved pedestrian concourse (designed by Drake and Lasdun now that the Tecton partnership is dissolved) will locate itself naturally under the shadow of the assembly hall of the neighbourhood school, seen projecting between the pilotis of two of the tall slab blocks of flats in Gordon Cullen's impression on the opposite page.  On the other side of the paved area will be a row of shops, a pub and a laundry, united visually by a continuous concrete canopy which will define the enclosed area of the Forum without preventing views outwards between the individual buildings which it subsumes. The essential feeling of enclosure, and of being in a definite place, will be further enhanced by throwing entrance-canopies across from the shops and pub to the flats on the right, again defining the limits of the Forum without impeding vision or circulation.

Robert Melville

HENRY MOORE*

AND THE SITING OF PUBLIC SCULPTURE

Several sculptures were approaching completion when I visited Henry Moore on a mild, damp day in 1953. The studios could not contain them all, and some large figures in Portland stone and plaster were out in the open. Their pallor caused the light to glitter in a way which usually precedes a storm, and they gave off a silence so dense that the noise of carpenters making a wooden template in the yard seemed to come from across the fields. The scene was in harmony with Moore's views on the placing of sculpture, for in 1951 he wrote: 'Sculpture is an art of the open air. Daylight, *sunlight* is necessary to it, and for me its best setting and complement is nature. I would rather have a piece of my sculpture put in a landscape, almost any landscape, than in, or on, the most beautiful building I know.'

Stone sculpture was probably uppermost in his mind when he made this statement, and anyone who has seen the heads and shoulders of his Battersea Park group, honey-coloured and rotund, thrusting into the blue of a summer sky, is bound to go part of the way with him. But the spectacle of stone in sunlight is too intermittent ever to become a ruling factor in our environment. Moore himself now works much more frequently in bronze than in stone, and bronze does not share stone's capacity for basking in the sun. Indeed, the lean figure in green bronze which was exhibited at Battersea Park in 1951 only came into its own on bad days. In fine weather it was a 'difficult' structure whose acid green colouring, which had not then been modified by exposure, gave it a stridently *avant garde* appearance. But with an admirable premonition of its needs, the Panel responsible for the arrangement of the exhibition had

* An exhibition of Henry Moore's work opens on February 11th for one month at the Leicester Galleries.

placed it heron-like on the grass verge of the pool, and on the days when it rained and a mist crept over the surface of the pool a queer uneasy life mounted through its knotty forms, and, wavering between earth, air and water, it seemed to emblemize the pathos and predicament of life too restless ever to be in its element. If it could have stayed there as a permanent feature of the park it would have been profoundly complementary to the *Three Standing Figures*: when the one slept the other would have been awake, for the stone from which the *Three Standing Figures* is carved, so lively and beautiful in sunlight, goes the colour of khaki in wet weather.

Sculpture in the open air will not make Britain look like a Mediterranean land, but as Professor Pevsner has said, it provides 'a test of sculptural quality' even if the work is not intended for the outdoors. When Manzù's young ballet dancer seated on a bronze replica of a rush-bottomed chair was exhibited at Battersea she seemed likely to catch her death of cold since she was sitting in a puddle of water most of the time, but she passed the test of unrestricted light without difficulty. This is an obvious example of indoor sculpture, but there are sculptures which one would have thought were perfectly suited to a park setting which in one way or another are belittled by an exposed position, although their sculptural quality is not in doubt. The naturalism of Rodin's *St. John the Baptist*, for instance, needs the unnatural setting of an indoor museum if the mind's eye is to see him striding naked through the world; in the open air museum he is reduced to striding about a park, and his hurry seems excessive and turns him into a distant relative of the White Rabbit. One would certainly expect Marini's horses and riders to look at home in the open, yet they have only to be slightly under life size to look a bit lost on a stretch of lawn; they need a sharply defined space—a courtyard or a small *campo*—before they look their best. This doesn't however tell us much about the problem of scale, because, although works which are very much smaller than life size tend to look trivial in the open, there are a few, such as Modigliani's formalized heads, or Giacometti's groups of walking figures, that are quite unaffected. Probably it is the content of a sculpture as distinct from its subject—the content being the unpredictable outcome of the formal treatment of the subject—which gives us our sense of the fitness or otherwise of a setting. This might well explain why Moore's work is never incongruous in the open: his early doctrine of truth to material still conditions his forms, and the human subject emerges not only as effigy but as the 'looking outwards' of stone, wood and clay.

The first cast of his bronze of two seated figures called *King and Queen* has been acquired by the Burgomaster of Antwerp for the open air museum at Middelheim Park. Other works which the Burgomaster has recently purchased for permanent exhibition in the open are by Rodin, Maillol, Despiau, Gargallo, Marini and Manzù, and I understand that there is a building in the park which will be used for the exhibition of figurines. This is an ambitious and wholly admirable extension of the kind of show that has been so successful at Battersea, and, to judge from the works already acquired, Middelheim Park is on the way to becoming one of the most important museums of contemporary sculpture in Europe.

Moore's *King and Queen* is ideal park sculpture, but should have a long prospect of lawn in front of it, without other sculpture intervening, for the figures are watching an invisible procession or display, and their gaze should be expended on the air. It is Moore's finest achievement since the war, and probably the most graceful of all his

works. It is a resolution of a conflict between a static, hieratic approach and a dynamic, humanist one, and it has all the lovely, liting composure reserved for those rare works in which equally deep-rooted and mutually exclusive inclinations flow freely together. The unusual title is a reflection of its remarkable content. If Moore had followed his usual practice this group would have been given a name which referred to the subject: it would have been something non-committal, like 'Two Seated Figures', because in the ordinary way the attempt to extract a name from the content only gives a false impression of symbolism. But in this case the processes of formal invention have brought into the open an aspect of the content sufficiently explicit to be namable without harming the layers of meaning. These two slender young figures are set apart by their high skill in deportment: the regality of their bearing does not depend upon stateliness; they are virtuosos of a reserved informality, and look *through* us with a lively concern.

Moore's vision is essentially that of a carver, founded on a cutting through to form, and his modelled figures, made by a contrary process, do not pursue the more demonstrative possibilities of the armature. So although his *King and Queen* have a liveliness and a potentially snake-like quickness of movement which is the reverse of a static conception, they are characterised, like his carved figures, by an awareness of being alive which they do not need to demonstrate in overt action. The head of the King is an extraordinary invention, a kind of bone structure embracing bird-beak, helmet and crown, which suggests that the frequent wearing of some archaic mask of kingship has so modified the living features that the mask has become redundant. But magic and terror are only lightly touched upon, and if the King is watching a concourse of slaves pass by in chains the graceful young patroness of charities seated beside him is obviously watching a point-to-point or a nice demonstration of loyalty, and she is a kind of guarantee that the King will not peck out the hearts of his subjects.

The open-air museums are the Whipsnades of sculpture. They are intended as a kindness to sculpture, and have one inestimable advantage over the indoor museums: they eliminate the malaise that lies in wait for us wherever rows of artifacts are set out in rooms for our inspection and edification. It seems reasonably certain that other municipalities will follow Antwerp's enlightened example. The LCC will be holding its 1954 open-air exhibition of sculpture in the grounds of Holland Park, where walls and courtyards will come into play. It may or may not prove to be a better setting than Battersea, but the apparent willingness of the authorities to experiment in the parks is heartening, for there does not seem to be a more effective way of stimulating public interest in contemporary sculpture.

Moore's *King and Queen* requires a ceremonious setting of a kind which only formal park-land can provide, but when Moore was writing about landscape settings he was thinking not so much of parks as of downs, fields and heathland, where sculpture would be encountered *unexpectedly*. The *Standing Figure* which stood for a while in Battersea Park has been acquired by a Scottish collector, and now stands on an outcrop of rock in open country at Shawhead in Dumfriesshire. It is arguable that it leads a less restricted life there than if it were in a museum: it is not an exhibit but a queer landmark which can be closely examined and still retain the unexaminable look of an apparition. In a museum this bronze would be interesting, to quote the catalogue

of his Tate retrospective, as a realisation of Moore's desire to create 'opened-out sculpture that is neither a mass pierced by voids, nor a linear structure in space', but in its present situation it is a reminder that the sculptor desires above all things to create an active presence. If the other two casts of *Standing Figure* could join it there, not sharing its rock, but standing beside it on the ground, the group thus formed would be the first realisation of that dream of a 'free community' of sculpture that so persistently haunts Moore's drawings and gives them their unique status in contemporary graphic art.

The set of carvings made for the Bond Street facade of the Time-Life building is not a free community in this sense, but the suggestiveness of number is nevertheless potent: one of these huge stones would be memorable enough in Bond Street; four of them



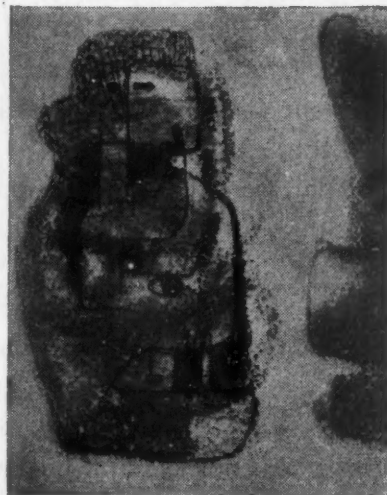
1, Moore's terrace-screen on the Bond Street facade of the Time-Life building, the architect of which was Michael Rosenauer.

constitute a mission or delegation from a world where time and life are measured by the throwing up and casting down of mountain ranges, for Moore has taken advantage of this commission to put an emphasis upon the stoniness of stone even greater than in the period of his entire preoccupation with weight and mass. A complete awareness of the elephantine bulk of these carvings is unfortunately limited to those who have seen them in the

sculptor's garden: they need to be based not much more than a yard above ground level to be seen in depth, and in Bond Street, two storeys up, their warm and weighty grandeur can only be glimpsed and surmised. But this does not lessen one's gratitude to the architect who persuaded Moore to make so remarkable an excursion into architectural sculpture. The germ of this set of carvings can be found in a drawing by Moore which is dated 1937; in other words, it comes from a region of the imagination where stranger and vaster plans for sculpture have been laid, and if one such dream of sculptural assemblies can find its way into actuality there seems no reason why others should not follow.

The bronze of a reclining female figure in the terrace garden of the same building has the calm alertness of his reclining figures in stone, and like them gives out 'something of the energy and power of mountains', and the inventive treatment of the drapery even intensifies one's sense of being in the presence of a nature goddess, for it is achieved with countless nodules and runnels of bronze which bear a striking resemblance to aerial views of Himalayan snow slopes.

The plaster model of this figure was in one of the studios when I was down at Moore's place. Other work was going on there, and she had been moved to one side and was staring at one of the walls. As if absorbed by boundlessness, she had raised herself on her elbows to stare at the horizon, and the situation in which we found her would have been disturbing if the sculptor had not immediately changed the position



2, detail of a drawing dated 1937, on which Moore based his preliminary studies for the Time-Life carvings.

[continued on page 95]



3

Moore considers that sculpture is an art of the open air, and several of his post-war sculptures are now in permanent outdoor settings. The bronze called *King and Queen*, cast in 1953, was made for a park setting, and has recently been acquired by the Open Air Museum of Sculpture, Middelheim Park, Antwerp. It is a work in which heterogeneous formal elements serve a profoundly humanist vision. The long, firmly planted feet, 3, suggest remote agrarian civilizations, but the easy posture of the figures and their air of polite interest, 4, arise from gently satirical observation. It is ideal park sculpture; the figures are watching an invisible procession or display, and demand only a good stretch of lawn for the exercise of the regal function of 'being present,' which, happily, is indistinguishable from the function of sculpture.



4

In his treatment of the hands, 5, of the female figure in the bronze called *King and Queen*, Moore has reverted to the simplified realism employed in the modelling of the feet, but not in evidence elsewhere. Gracefully cupped in the lap, the hands express a dignity and pathos which powerfully modifies the pertness expressed by the inventive forms of the head. The head of the male figure, 6, is one of Moore's most fantastic inventions, and introduces an element of magic and cruelty; it sends a ripple of avidity through the sleek, drum-tight volumes of the torso and in-

vigorates the entire figure. The reclining figure cast in 1953 for the terrace of the Time-Life building is another of Moore's works which demands an open prospect. The lifted gaze, 7, calls for an expanse of sky, and the raising of the body, 8, gives the nostalgia for horizons a kind of tranquil urgency. A nature goddess has always lurked with the forms of Moore's reclining figures, many of which tend to evoke a landscape of hills and valleys, but his brilliant treatment of the drapery of this bronze has enabled him to bring her into a



close association with the very texture of wind-blown, rain-drenched earth.







9



10



11



12

In his drawings, Moore has persistently depicted statuary in lonely, inaccessible places, and his photographs of his own sculpture are always taken in the open, and as far as possible without signs of human habitation. Another view of the draped reclining figure, 9, discloses his desire to place her deep in the countryside. The first of his sculptures to be given a permanent site in open country is the bronze Standing Figure of 1951, 10. It is at Shawhead, Dumfriesshire. The large Internal and External Forms, 11, in the sculptor's own studio at Much Hadham, is the plaster maquette for a wood-carving. The sculptor and his daughter are seen in the background. The monumental Warrior, 12, is in fact a very small bronze which the sculptor cast himself. He is now working on a much larger version.





13, a terracotta version of the female figure in the King and Queen. The size of this figure and the radical changes of volume, from the bulk of the chest to the thinness of the wrists, made the successful firing of this work something of a tour de force.

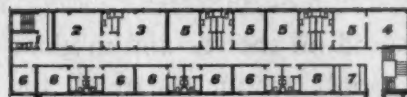
of the stand, so that she could stare through the open door. Moore has been careful to find a situation on the Time-Life garden terrace that gives the bronze version an unimpeded view along Bruton Street.

Some figures need an open prospect. Others seem happy enough in an enclosed place. There is a small hut close to Moore's studios, in which he keeps maquettes and small bronzes. They stand on shelves and in glass cases all round the room. I saw not only maquettes of all the things he was working on, but small helmet heads and reclining figures in bronze, animal heads modelled in wax, many enigmatic figurines which were in the nature of notes for sculpture, and a fine bronze of a naked warrior, only a few inches high, but monumental in spirit. In the centre of the room stood a terracotta version of the female figure from the *King and Queen*. She is considerably smaller than the figures in the bronze group—about three feet high, I should say—and she was on a wooden stand which brought her to eye level. In this confined place, not much bigger than a store cupboard, she was too impressive as an effigy to allow one to give much thought to the sculptor's figurative inventiveness or to the skill with which so difficult a piece had been fired. It was as if one had broken into the tomb of a Queen who had died young and had been surrounded by mementoes of the life of her times to keep her company in eternity. The effect of animation and subdued splendour in that very commonplace little hut was quite miraculous, and it suggested that the provision of deep recesses in the sculpture galleries of museums could bring the large and small works of an artist or a period into illuminating juxtaposition.

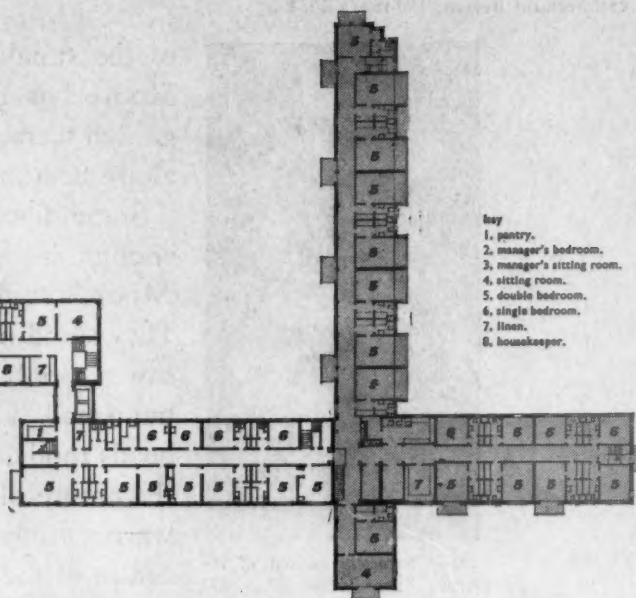
The magic that can suddenly invest works of sculpture when the conditions of the studio produce accidental tableaux was underlined for me when I went into Moore's second studio, where a large tree-trunk, lying on a bed of its own chippings, was beginning to take the shape of a ten-foot-high vertical form, which is to enclose another, separate form. Although it has other and perhaps more obvious associations, Moore himself relates this conception of one form within another to the fascination of the hollow tree considered as a hiding-place. His original intention was to make a 6ft. bronze, but when he came across the tree in a timber yard at Bishop's Stortford its relevance to his theme was too evident to be ignored. So the 6ft. plaster model that had been prepared for a bronze cast is now the maquette for a wood carving. The hollowed-out tree-trunk resembled a primitive boat, and while we ran our hands over its strong, thick flanks the man-sized maquette stood watchful in a corner, giving me the sense of being an intruder; and once again I had the feeling that the fantasy in Moore's drawings was knocking at the door of actuality.

The significant statuary of our time serves no sacred, commemorative or symbolic purpose, and has practically no validity as architectural decoration. It has to be valued as a community within the community, whose members, subtle and potent presences, rise about us at strategic points, and to all architects who perceive the possibilities of the psychological use of sculpture I would recommend an examination of the unique and magical documents on the subject to be found in Henry Moore's drawings.

HOTEL AT LUSAKA NORTHERN RHODESIA

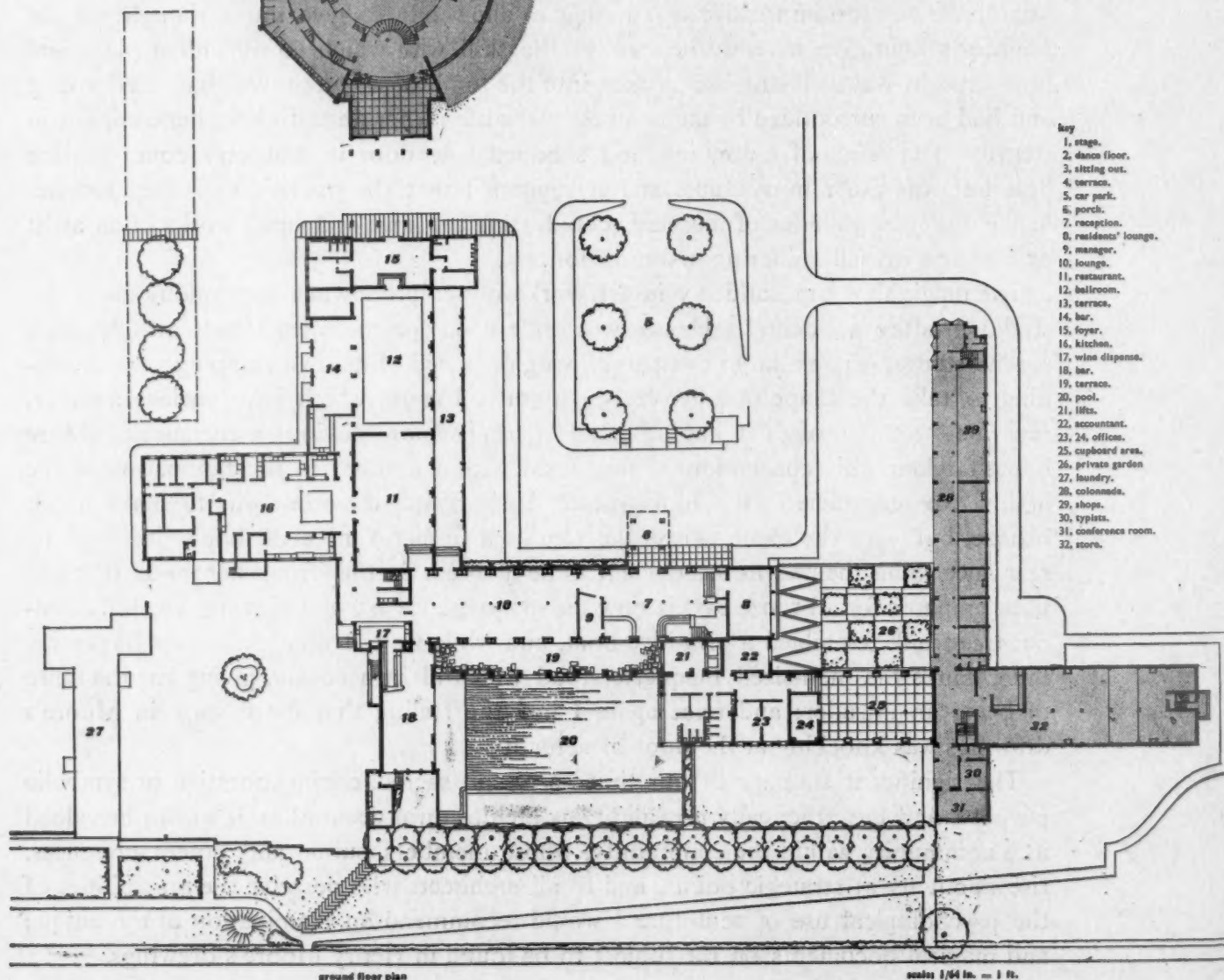
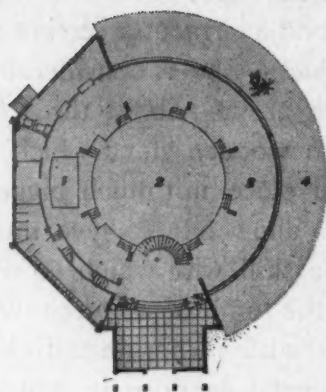


typical upper floor plan



- key
- 1. pantry.
 - 2. manager's bedroom.
 - 3. manager's sitting room.
 - 4. sitting room.
 - 5. double bedroom.
 - 6. single bedroom.
 - 7. linen.
 - 8. housekeeper.

the future extension is shaded



- key
- 1. stage.
 - 2. dance floor.
 - 3. sitting out.
 - 4. terrace.
 - 5. car park.
 - 6. porch.
 - 7. reception.
 - 8. residents' lounge.
 - 9. manager.
 - 10. lounge.
 - 11. restaurant.
 - 12. ballroom.
 - 13. terrace.
 - 14. bar.
 - 15. foyer.
 - 16. kitchen.
 - 17. wine dispensa.
 - 18. bar.
 - 19. terrace.
 - 20. pool.
 - 21. lift.
 - 22. accountant.
 - 23. 24. offices.
 - 25. cupboard area.
 - 26. private garden.
 - 27. laundry.
 - 28. colonnade.
 - 29. shops.
 - 30. typists.
 - 31. conference room.
 - 32. store.

ground floor plan

scale 1/64 in. = 1 ft.



HOTEL AT LUSAKA NORTHERN RHODESIA

G. A. JELICOE: ARCHITECT



1, general view from the bar across the pool towards the north block.

The site of the hotel was established in the Advisory Plan for Lusaka published in 1950. It lies on the low tree-clad spur of hill, chosen by Professor Adshead in 1931 for the capital buildings. This spur stands above the lower town and the flat plain that stretches eleven miles towards the more mountainous scenery of Chilanga. The accommodation at present comprises 26 double and 28 single bedrooms each with bath, public and private lounges, large and small restaurant, bar, outdoor lounge, terraces, coffee terrace, veranda, café

2



2, the main entrance seen from the corner of the projecting ballroom and restaurant block. 3, general view of the hotel from the site of the proposed new ballroom. Behind the single-storey ballroom and restaurant are the two and three-storey accommodation blocks and the water tower. On the right is the kitchen. 4, the single-storey bar seen across the pool. All outdoor furniture is in white metal with brightly coloured discs and cushions in plain and printed materials.

3



HOTEL AT LUSAKA NORTHERN RHODESIA

and ballroom. The lounges and kitchen quarters already built are adequate for a further 50 bedrooms, which have been designed in detail and should be built this year. A new ballroom is planned to be built independently as a multi-purpose hall, and the present ballroom will then revert to the restaurant.

The climate is moderate, never tropically hot and never severely cold. The low west sun is dangerous for a short period, but big eaves and sun blinds give protection during the day time, as the sun is nearly overhead; glare is the greater problem and concern. Pro-





5

5, view of the pool and of the three-storey block seen from the bar terrace. 6, the south veranda adjoining the pool. The piers are of local limestone.

tection is also required from a wind veering from the east, which drops at sundown. The restaurant veranda is closed to mosquitoes, but visitors must take a harmless chance on the open terraces around the pool. The pool and fountains give a sense of abundance of water in an environment that is normally dusty and parched.

The buildings generally have a reinforced concrete frame with brick infilling panels, and are externally rendered and colour-washed pale pink. The roof is asbestos sheeting on a timber frame. The unskilled labour was native. The whole of the designs were made in close collaboration with the manager, Mr. Eric de S. Hall, who worked for a period in the architect's office, and with his wife, who has taken charge of the planting and landscaping work.

The interior is planned to be as flexible in use as possible. The light furniture and vivid splashes of colour against a cool background provide both stimulus and repose in a central African landscape that tends to be very monotonous.

Although the hotel is primarily for visitors, it is inevitably a social centre for the residents of Lusaka as well. All interior decoration and furnishing are the work of Denis Lennon.



6

HOTEL AT LUSAKA NORTHERN RHODESIA



7, 8



9, 10



11, 12

7, the cocktail bar. The bar-back is composed of stove enamelled white steel ladders, supporting mirror glass shelves, with different coloured panels behind. The banquettes beside the bar are covered in two shades of grey check linen and the wall behind is natural local stone. The ceiling is in a black and white check wallpaper and the light fittings are in bright sharp colours. The furniture is metal and cane. 8, the residents' lounge. Walls are pale grey

with white dot wallpaper, upholstered furniture is in dark green and grey and the carpet is grey and white. The ceiling is pale yellow and the occasional armchairs are in scarlet. 9, the ballroom. The colouring is mainly white with scarlet flock wallpaper panels and with curtains in white and gold. Light fittings are dark green and gold, and the ceiling has now been finished in different coloured squares of pink, blue, grey-green, and yellow.

10, the dining-room. The ceiling is deep red and gold. The curtains are in grey and yellow striped silk, the upholstery is mustard yellow and black. 11, the kitchen. 12, the main entrance hall. It is painted light-green-grey with pale blue columns and lemon yellow lighting trough and curtains. The floor is of terrazzo in grey-green and white squares. Interior fittings for the hotel were described in detail in the ARCHITECTURAL REVIEW, January, 1952.

Alan Houghton Brodrick

GRASS ROOTS

HUTS, IGLOOS, WIGWAMS AND OTHER SOURCES OF THE FUNCTIONAL TRADITION

foreword The primitive builder is a useful fiction who, like his brother the noble savage, can be trotted out on polemical occasions to battle with that equally useful fiction, the evils of sophistication. Primitive dwellings, on the other hand, have a real existence and are therefore a polemical embarrassment, since they may prove to be the work of highly sophisticated men—as were the moss-houses and bark-houses of the Picturesque, as are the desert shelters built by pupils of Frank Lloyd Wright. However, these sentimental refusals of the benefits of one's own culture are not quite what is usually meant by the term 'primitive' and the article and the illustrations which follow are concerned with the dwellings erected in cultures which are trapped, for whatever reason, under a low technological ceiling. However elementary these dwellings may appear, they are normally the work of men using their own, however limited, technological aids to the full, and the skills, whether traditional or empirical, which they are able to employ have often reached a high pitch of development. In societies where trades are hardly differentiated this means that the average family carries in its heads a stock of building-lore whose equivalent, in Western terms, would be a thorough knowledge of the performance of materials and of prefabrication techniques.

'Primitive' in this sense is a term bearing on the cultural and technical development of the society in which a man finds himself, not a term bearing on the intention or mental equipment of the builder. Those aspects of primitive dwellings, in this sense, which seem most technically instructive or morally rewarding to study, exhibit two main characteristics irrespective of size or location. The builders appear to have worked well up to the technological ceiling of their culture—and well below the aesthetic ceiling. In private dwellings it is not the quality of the ornament which is significant, but its relative absence. Whatever the reasons for this may be—mobility, modesty, poverty or

sloth—there will nearly always be found in the same culture buildings of religious or social consequence which carry a heavier load of symbolism, a more fulsome scheme of decoration, than the residence of the ordinary family. The aim, in the construction of ordinary dwellings, seems often to be the achievement of a high degree of functional adequacy only, any emotional or religious superflux being reserved to shrines, meeting-houses and palaces.

This decorum, which has survived into the sophisticated dwellings of the Japanese alone, this ability to accept the proposition that a common task should be performed in a simple and unobtrusive manner, lies at the very roots of the Functional Tradition in Western cultures. In product design this tradition extends from the flint axe to the bicycle, and the history of the plough is its concentrated essence: in building it extends from the brush-wood wind-break to the prefabricated school, and its essence is the history of the tent. We, who design well below our technological ceiling and well above our aesthetic one, are taken back to the very grass-roots of architecture when we study the dwellings of the men we call primitive, for we are taken back to the beginnings of that tradition which, though it is not architecture in itself, is the only soil in which architecture can take root and flourish.

Alan Houghton Brodrick

Some years ago I was invited to a banquet by one of the leading vintners of Vouvray on the Loire. The guests assembled in a courtyard one side of which was sheer rock-face pierced, here and there, with doors. The dinner was, indeed, served in the farthest recesses of cavernous wine-cellars, but it took us some time to realize that much of the large and luxurious house in whose succession of rooms we wandered while drinking white-wine cocktails was also hollowed out of the rock. Our host was, in fact, a cave-dweller, though a sophisticated one. He and his forefathers chose, mainly for convenience's sake, to carve for themselves an abode out of the limestone. Between road and cliff there is not much space for building as we understand it. The vintner had very solid reasons for being a troglodyte especially as it is a good deal cheaper to burrow into the soft stone than to erect a masonry house.

So men still live in the ground as well as on it and above it. The epithet 'cave-man' has become established in colloquial speech and we are, most of us, inclined, off-hand, to think that men's first dwellings were caves. Yet it must have been comparatively late in the human story that men ventured to reside in climates where permanent shelters are indispensable.

However, there are, at the present time, still cave-dwellers scattered about in many different parts of the globe, although there is not in any given area a really large troglodyte population. Furthermore, as many inhabited caves are fitted with frontages and façades, these dwellings are far from being 'primitive.' For instance, when I used to have a house in Touraine, I was often invited into troglodytes' homes which were dry and convenient as well as being warmer in

winter and cooler in summer than even the well-built masonry houses of the Loire Valley's inhabitants. In Shensi, also, Mao Tsetung's followers not only had their homes but all their government offices in caves. Houses, shrines, temples and storehouses in caves furnished with architectural façades abound in many parts of China. The Dogons in the French Sudan, the Pueblo peoples in the southern United States and the Tunisians in the Matmata region—to mention but a few of the troglodytes—all use, or used, abodes with cave-extensions or caves with house-like frontages.

The numerous palaeolithic workshops—where instruments were fashioned—are nearly all in the open air. Near these factories it is more than probable that makeshift huts were put up. Of their appearance we can get some idea from the sketches upon the walls of prehistoric painted caverns in Western Europe. These may in some cases be well over 15,000 years old.

If we know little about the abodes in the ground or on the ground which were utilized by men of the Old Stone phase, when we come to neolithic times we can see that men were already using many of the kinds of homes which have survived to this day. By that time an entirely new way of life had been established. Food-gathering had given way to food-producing, and with agriculture went homesteads, villages and other features of a settled existence. In neolithic times we find abodes both on and above the ground. The construction of the house itself was, if we may judge by modern examples, generally not much influenced by its position relative to the soil. Pile-dwellings are ground-dwellings on stilts or ground-dwellings are pile-dwellings without the stilts, as we like it.

Let us take first of all dwellings 'above the earth.'

The most spectacular of the high-perched abodes are those on piles driven down through water. Of such were the homes of the neolithic lake-dwellers of Switzerland and northern Italy and the crannogs of Scotland and Ireland. The earliest neolithic farmers appear often to have chosen, indeed, river- or lake-sides for their habitations.

A high-perched house not only affords protection against damp as well as animal and human enemies, but such an abode is also convenient for boating, fishing and drainage. Houses on 'stilts'—which may be six feet or even more in height—still exist in many parts of the world, on the Upper Nile, in tropical America, in Indonesia, in Micronesia and elsewhere. Pile-dwellings can be very striking when seen fringing the shallow waters of, say, the New Guinea coast, though the 'stilted' huts—with an entrance-ladder acting as a drawbridge—of Cambodia are impressive enough when you come upon a collection of them, unexpectedly, in the depth of the jungle.

But not all raised dwellings have the aerial elegance of these southern abodes. The Russian *isba* or log-hut and the normal Japanese house are also raised, but on stones, and for a height which varies from only a few inches to a foot or so. A wooden house must have air circulating under the floor.

In addition to the raised dwellings which are so built for reasons of convenience mainly, there are constructions which have to rest on piles because of the relief of the soil. When homes are built on slopes or hillsides, part or all of the superstructure must be carried on piles, or pillars of stone or, nowadays, of concrete. Not a few of the garages and even villas, bordering the corniche road between, say, Villefranche and Cap-Martin on the French Riviera, are 'pile-dwellings' or, at least, houses above and not on the ground.

Dwellings upon the ground, which form of course the vast majority of human abodes, we can divide into three distinct types (a) the tent, (b) the hut, (c) the house.

We may define a tent as a light construction with a framework either of poles stuck in the ground and joined together at their free ends so as to form a cone, or with a framework of bent twigs and branches making hoops, or some other arrangement whereby support is given to a covering of pliable material with one continuous surface, e.g., of skins (Amerindians and Eskimos), of bark (Australians), of woven cloth (Moslem nomads of Africa and Asia) or of felt (the nomads of northern Asia).

In the northern regions of Europe and Asia a conical tent is used by the Lapps of Norway and a comparable one is found all over the immense area eastwards as far as the Eskimo settlements in Greenland. In these lands, of course, it is only the summer home, though in the Americas the *tipi* of the Amerindians tends, or tended, to be used, in regions of mild climate, as an all-the-year-round abode.

A second tent-belt runs from the French Sudan along the world's desert zone to as far as the neighbourhood of Peking. In Africa the 'Saharan' tent, whether of the southern Moroccans or of the Nubian Bisharin, is low, stretched on stakes and sometimes

roughly triangular in ground-plan. In western Asia the 'Arab' tent (circular or polygonal) is used as far east as Persia, while from the Caucasus to northern China we have the most elaborate of all tents, the *yurt*, which among the more wealthy nomads is often a roomy and comfortable abode.

Of other dwellings—except floating ones—which we may call respectively 'huts' and 'houses,' a 'hut' may be defined as a structure of light materials and a 'house' as one of heavy materials, though such a classification is not wholly satisfactory. In our ordinary speech the word 'hut' suggests something small and lowly so that we are inclined to think of, say, the elaborate, but lightly built, communal halls of some of the inhabitants of New Guinea as 'houses' rather than 'huts.' On the other hand, we must class as 'huts' the cylindrical abodes with heavy, earthen walls and thatched, conical roofs which are common enough in Africa. One curious form of hut is the *igloo* of some Eskimo tribes (notably those of the Canadian North) which is constructed of snow-blocks. The hut is domed and the cupola finished off from the inside before the entrance door is cut.

A hut may be of circular or quadrangular ground-plan—and so, indeed, may be a house, though circular-plan houses are rather rare. In pre-dynastic times at Ur in Mesopotamia, the marsh-dwellers had reed huts while the inhabitants who lived on the edges of the higher desert had houses of mud brick.

The round hut is characteristic of Africa from the Abyssinian highlands down to the Cape. Such a type of home is very ancient in Africa for the later 'Tasians' who inhabited Egypt well before 5000 B.C. lived in round huts raised upon a substratum of dried mud.

To-day, African round huts range in size from one-man cubicles to the spacious constructions of the Baganda which may measure more than sixty feet in diameter.

Outside Africa round huts are relatively rare. They occur in Indonesia, in the Americas, in Lapland and among Siberian peoples such as the Gilyaks, though their huts are really permanent tents some of which are covered with turf. Some circular huts were in use in Europe during the time of the neolithic cultures. The ancestors of the Chinese, some 5,000 years ago and perhaps more, occupied 'beehive' huts in the region of the upper valley of the Yellow River.

It seems probable that the round hut, or at least the hut with a hooped or barrel roof, may have been the earliest form to be adopted since for its building a good deal less art is needed than for the making of any but the smaller quadrangular-plan huts.

The round hut is built up from four (or more) stakes driven into the ground. These serve as a framework for the walls, which may consist of anything from leaves to clay or dried mud. Since the walls cannot stand much lateral pressure, the roofing must be light and its skeleton is, essentially, a set of 'umbrella ribs' tied together at one end and with the other ends resting on the walls' uprights. The ribs are kept in place by the weight of the (generally thatched) roof covering. In the larger huts a central pole is necessary in order to support the ceiling. In Africa, at any rate, an earthenware pot is often placed upside down over the apex

of the roof in order to make it watertight.

In their simplest form the quadrangular-plan huts may have a 'barrel roof' formed of pliable branches bent over in a hoop from side wall to side wall. Such dwellings have to be low since the walls cannot stand much pressure, indeed, some of these barrel-roofed huts are just composed of a series of glorified croquet-hoops covered with light materials. Bamboo does very well as a framework. This form may be very ancient indeed. Some of the huts used to-day by, for instance, the Toda tribes in India look, if seen from the front where is the entrance, very like the sketches of huts scratched upon the walls of the Font-de-Gaume cave in south-western France, and the mass of the Font-de-Gaume paintings and engravings dates from late Magdalenian times (say 12,000 to 10,000 B.C.).

As soon, however, as the quadrangular-plan hut attains any considerable size the roofing begins to present a problem much greater than that which has to be faced by the builders of a round hut. The simplest type of quadrangular hut is one in which the roof-bridge is supported by a row of perpendicular poles set down the middle of the building. The uprights forming the framework of the side walls carry horizontal poles at their tops and from these horizontal poles slats are fixed which rest, at their top ends, on the ridge-pole of the roof. But even this simple construction demands a good deal more carpentry skill than does any roofing for a circular hut.

The quadrangular-plan hut may be covered with all sorts of vegetable materials, but the building itself is essentially the same in design and in execution wherever it is found—in Melanesia, in Polynesia, in Malaya, in southern India, in tropical America and in many other regions. In Polynesia some of the huts have no walls at all, but then the steep roofs reach to within a short distance of the ground. Moreover, there are, for instance, no walls to the elaborate *salas* or rest-houses of Cambodia, but although, at first sight, a *sala* may seem to be a quadrangular hut without walls, the building is really a wooden house without walls, a house, furthermore, whose construction calls for as much knowledge of carpentry and joinery as does the fabrication of a Swiss chalet.

Wooden houses, indeed, may vary from the simple log-cabin to the elaborate wooden homesteads of the Alpine regions. The *isba*, or log-cabin, is the least complicated form of wooden house. It is made up of tree trunks laid horizontally and morticed at the corners, but the *isba* has two of the characteristics of a house as distinguished from a hut. The materials employed are 'heavy' and, therefore, fairly lasting, and there is a 'carpenter's roof,' though in some parts of Siberia the *isba* bears a conical or pointed roof of logs put together without 'carpentry.' The 'carpenter's roof' is, of course, made up of triangles with beams as a base which enable central supporting poles to be dispensed with. But although this 'carpenter's roof,' or some modification of it, is the most usual device for covering a house, not all houses have such roofs. The terrace-roofed house, with the roof carried in cross-beams, extends over an immense area from Africa to China in the Old World and in the Americas southwards from the region of the conical tents—e.g., the

ancient 'Pueblo' dwellings in the American south-west. The terrace-roofed house is not characteristic of warm regions only, though it is probably one of the oldest types of dwelling round the Mediterranean shores as well as in the Near East. The terrace-roofed *kasbas* of the Great Atlas rise up in tiers and in areas where there is snow in winter.

The log-cabin is remarkably uniform in type and extends from Scandinavia to Siberia and is reproduced in America. The early history of the *isba* is obscure, but the log-cabin of the North American settlers is obviously a rough imitation of a brick or stone house, just as the beautiful old dwellings of Virginia, for instance, are imitations in wood made of British Georgian mansions, imitations set up in a country where wood was abundant and cheap, while bricks were hard to come by and expensive because imported.

The plank-house, which marks a considerable advance on the *isba*, is found on the borders of the *isba* area and in well-wooded regions where the arts of joinery are developed. Plank-houses are common in northern Europe (e.g., Norway), in northern Japan, in the north-west of north America (where the Amerindians of British Columbia are skilful carpenters and construct huge buildings of thick planks) and, indeed, the United States, where, taking the country as a whole, dwelling-houses of wood still predominate in most areas.

The house with walls of clay or earth is, together with the hut and the tent, the typical African dwelling. In Eurasia 'earthen' houses may be found interspersed among wooden or masonry dwellings—in western and central Europe, in western Asia and in Tibet. Such abodes exist (together with rectangular huts) in central and south America. The 'earthen' house is a very ancient form. There were at Jericho (perhaps before 5000 B.C.) quite elaborate houses and shrines with walls of *pisé* or stamped earth, and such buildings were also used in early dynastic times in northern China.

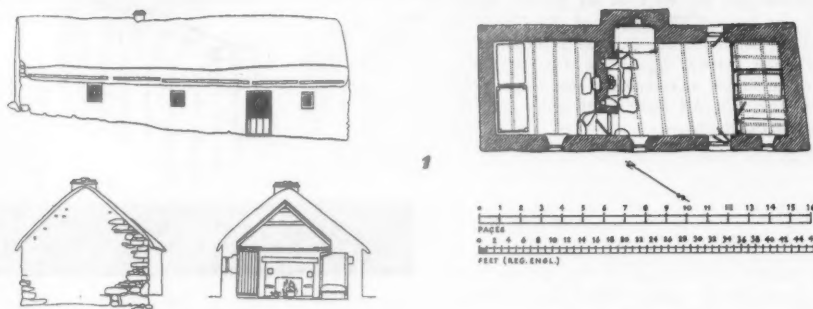
Half-timbered, stone and brick dwellings are characteristic of industrialized and semi-industrialized communities. The typical zones are from western Europe to India and from south China to Japan, that is to say regions where there is a dense population and relatively little wood but a developed woodworking art and a body of specialized masons.

The fact is, however, that many dwellings from simple beehive huts to *isbas*, plank-houses and earthen ones can be built by men who are not specialists but whose chief occupation may be trapping, hunting, cattle-tending or plant-raising. Your boys in Cambodia or Guatemala will build you a nice house between dinner and sundown. They all take a turn at the work as naturally as they cook or swim.

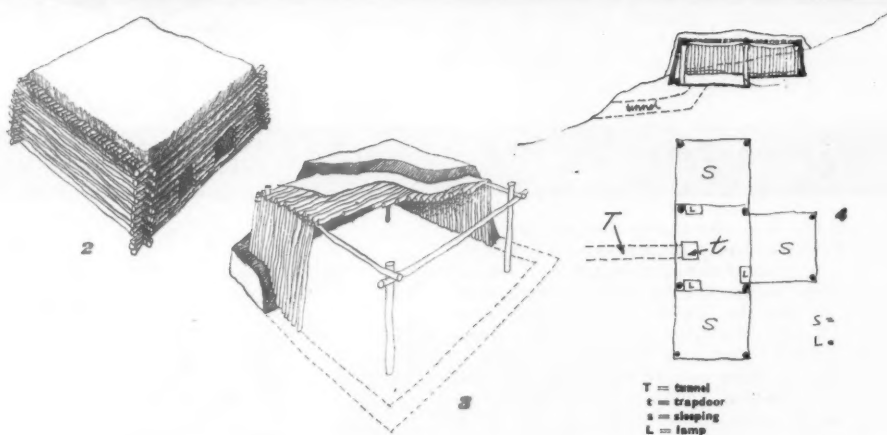
The half-timbered houses of East Anglia or of Japan cannot be constructed by a non-specialist. Houses mainly of stone or brick present even greater problems for the amateur builder. The stone house was and still is characteristic of communities with metal tools and a centralized political system, though some great stone monuments, e.g., those of the ancient Maya in Central America, were made without metal tools. Stone buildings were at first, it would seem, those of the gods

continued on page 111

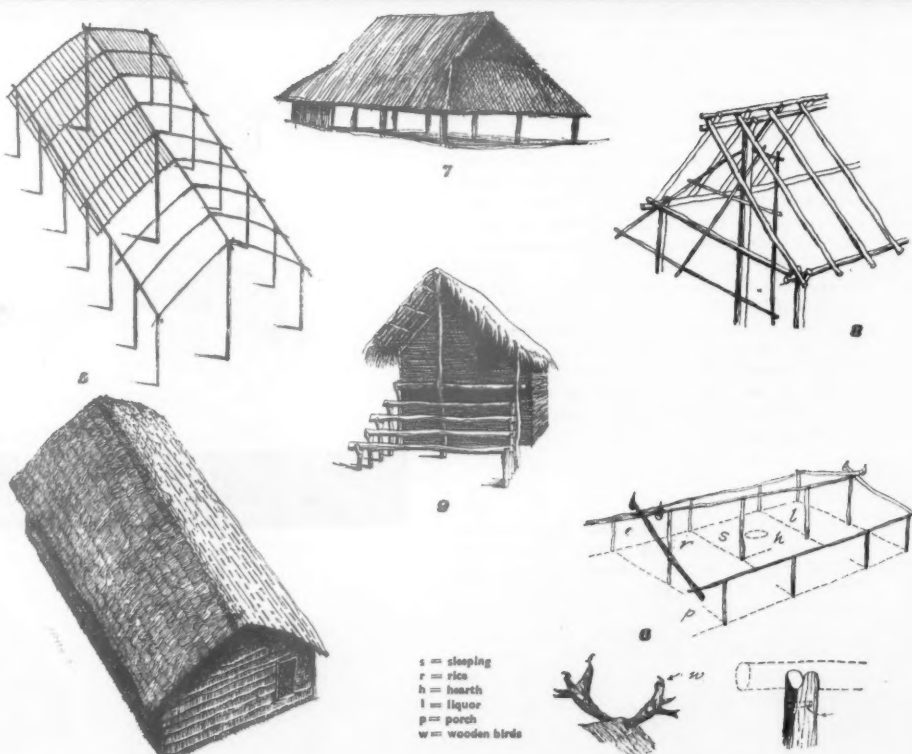
The most direct way of utilizing the materials at hand is to build a house out of the rock and earth on which it is to stand, and this has been the basic building technique, since pre-history, of areas where thermal insulation is a prerequisite, and rock occurs in manageable outcrops. This Irish example shows massive walls of native rock in combination with a thatched roof on wooden beams and rafters, 1. Few buildings could answer more perfectly the romantic dream of harmony with the surroundings, and few building types employ their materials with such appropriateness to the techniques available (unspecialized handicraft) or to the climatic conditions of a windswept site.



Widely distributed in marginal steppe and tundra districts of Asia and North America, the rectangular block-house is a winter home for nomadic tribes. The material at hand is the straight trunk of the coniferous tree, and its classical usage, the log cabin, is typified by the block-houses used by the Yukaghir of Siberia, with walls of poles notched to lie locked and a roof of close-set poles covered with sods and earth, 2—windows, where used, were of clear river-ice. But a pole wall needs caulking to exclude draughts, and a more widely used form of block-house is made of vertical pole walls, supported on a rectangular frame, the whole structure being covered in sods and earth to make it weather proof. This type was used among the Yakut and Tungu of Siberia, 3, and by some Eskimo tribes, 4, who gave it the characteristic radiating plan, found in other Eskimo dwellings, with private rooms opening off a central common-room.



The structural elements of a thatched frame-house show a nicely graded hierarchy, exemplified by this house from the Congo, 5. Three main posts carry the ridge-pole, seven subsidiary posts carry each eaves pole, and nine rafters on each side carry the sticks which serve as battens to carry the thatch. This hierarchy of structure can be made to symbolize the ranks of a clearly marked social hierarchy, and the houses of the Angami Nagas of Assam show a graded improvement in quality of materials and permitted decoration of such details as bargeboards as one ascends the social scale, 6. Such a clearly discriminatory approach to structure as one finds in thatched frame-houses opens the road to improvements and sophistications—the big partly open public buildings of the Gilbert Islanders, 7; the rain-screens in the end gables of the houses of the Chorti Indians of Guatemala, 8, where the setting back of the gable-post increases the utility of the veranda-like area under the screen; and the pole-steps, negotiable by man but not by less adaptable animals, which lead up to the entrances of Hylaa houses in the Congo, 9.

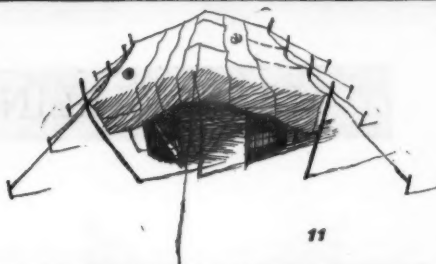


Matted coverings do not require a close-gridded support of battens as thatch does, and in mat houses like those of the Caroline Indians of America, 10, this simplification is carried even further by exploiting the flexibility of saplings to eliminate the ridge pole and its supports, all horizontal poles having equal structural status.



10

The ultimate refinement of the frame and cover house is the tent, where the covering element, functioning as a tension member, eliminates the need for anything but vertical supports. By its very nature the tent is the characteristic dwelling of fast-moving nomads like the Arabs of Iraq, 11, or the Mongols of Tibet, 12, and by demanding reliable tensile performance from materials of minimum bulk and weight it is a classic example of working near the technological ceiling of one's culture.



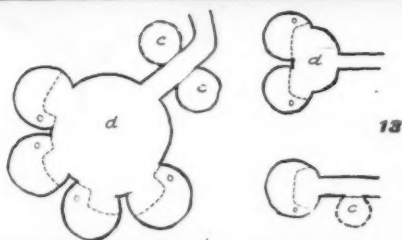
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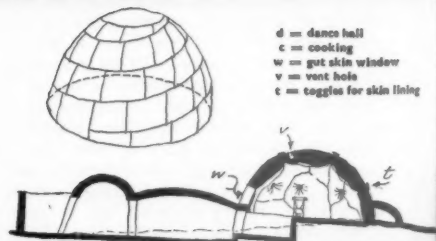
12

circular

The two most elementary circular plan types of primitive house are also the nearest to the kind of space envelope proposed for twentieth century occupation by such 'technologists' as Buckminster Fuller. The Eskimo snow-block dome, the igloo, 13, is normally a true hemisphere, which is the smallest figure to enclose a given volume on a flat base, and this economy of material is paralleled by the extraordinary sophistication of the spiral procedure in laying the blocks. (See also 18.)

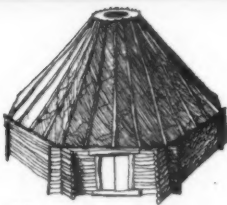


13



d = dance hall
c = cooking
w = gut skin window
v = vent hole
t = toggles for skin lining

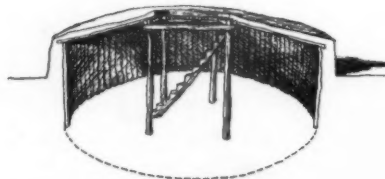
The sloping walls of domical and conical houses restrict movement, and in slightly more advanced societies the utility of the vertical wall justifies the effort of a differentiated structure—a circular enclosure covered by an independent roof. The octagonal block-houses of the Altai, 14, like those of other Siberian peoples, are built of poles notched to lie locked, and a conical roof of poles, and bark or skins; but the semi-subterranean houses of the Kamchadal, also Siberian, have vertically poled walls with a roof of earth-covered poles radiating from the framing of a central opening which serves as window, smoke-hole and door, 15. Completely different in conception, the mud-built drum-houses of the Ashanti country have the common North African solution of a roof of beaten mud on a pole frame, 16, but present the unusual feature of carrying that roof not on the wall-structure but on independent uprights driven in the ground.



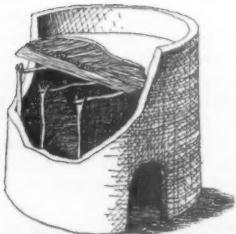
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15



16

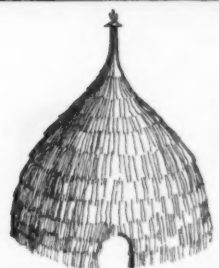


17

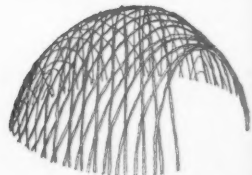
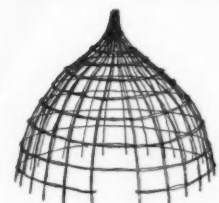
The commonest conception of the primitive dwelling, in the Western mind, is the beehive hut of tropical Africa—a frame of bent poles covered with a thatch of grasses, like this example from Kenya, 17, or thatched with leaves like this very primitive shelter of the Bakinga pygmies, 18. The close structural

[cont. on p. 109]

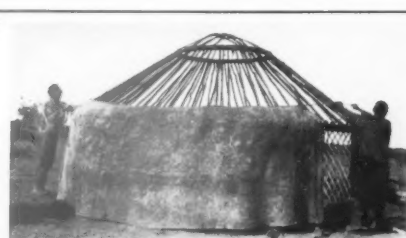
FRAME & COVER : uniform construction



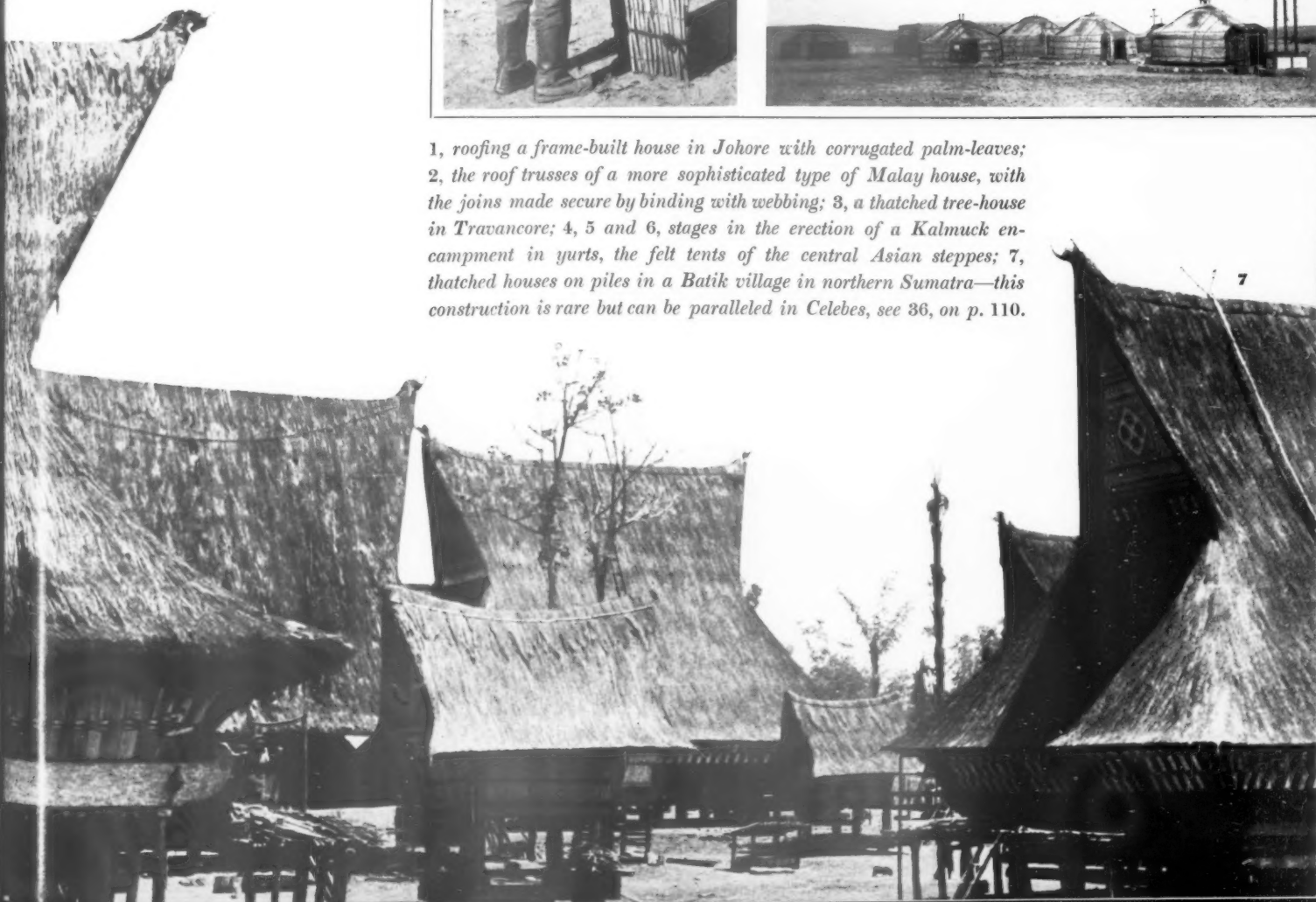
17



18



1, roofing a frame-built house in Johore with corrugated palm-leaves; 2, the roof trusses of a more sophisticated type of Malay house, with the joins made secure by binding with webbing; 3, a thatched tree-house in Travancore; 4, 5 and 6, stages in the erection of a Kalmuck encampment in yurts, the felt tents of the central Asian steppes; 7, thatched houses on piles in a Batik village in northern Sumatra—this construction is rare but can be paralleled in Celebes, see 36, on p. 110.

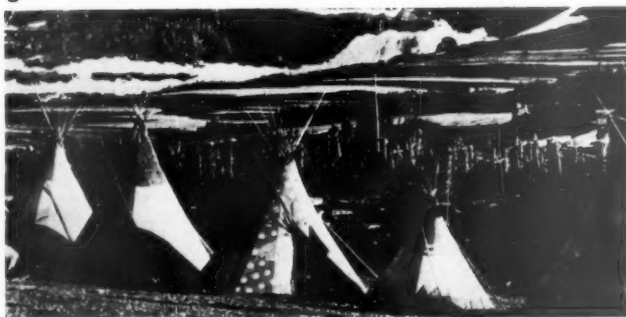




8

8, mud-built drum-houses in Ashanti, the flat roofs are of beaten mud over poles and the conical structures with thatched lids are used for storing grain, etc.; 9, tepees of the Black Foot Indians in Montana; 10 and 11, an igloo by day and by night, the illumination from inside revealing clearly the joins between the spiral-laid snow blocks of which it is built.

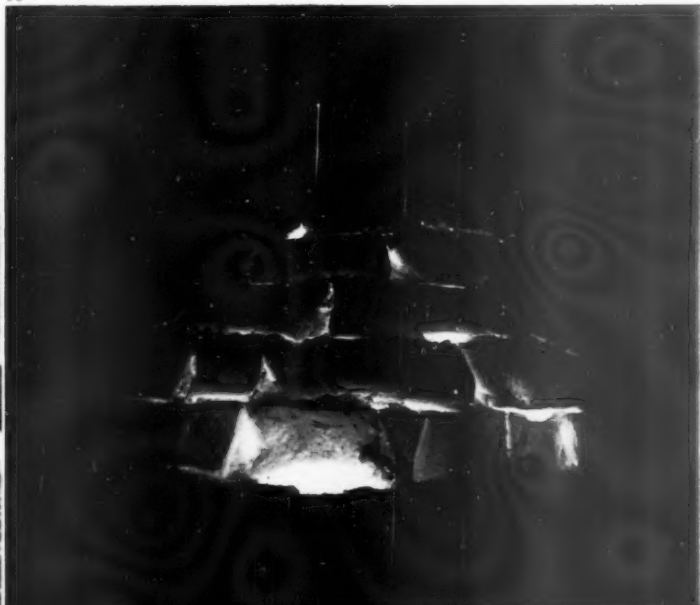
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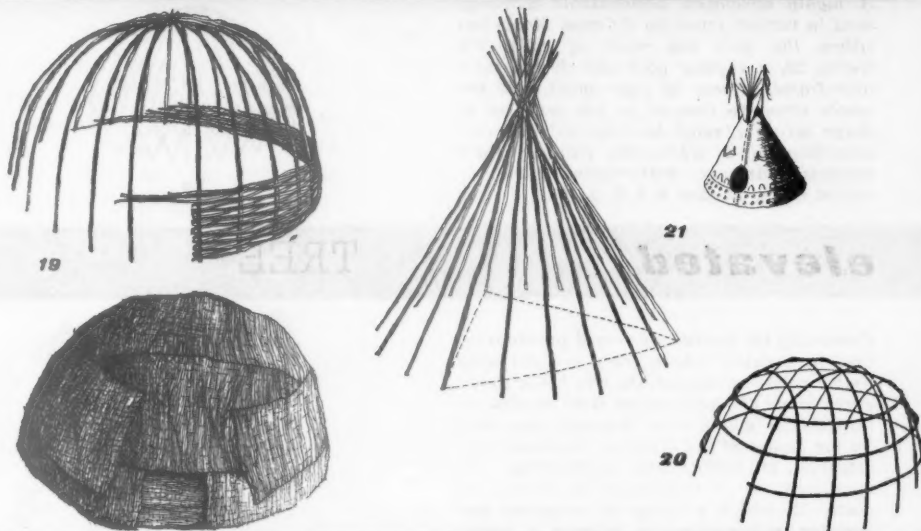
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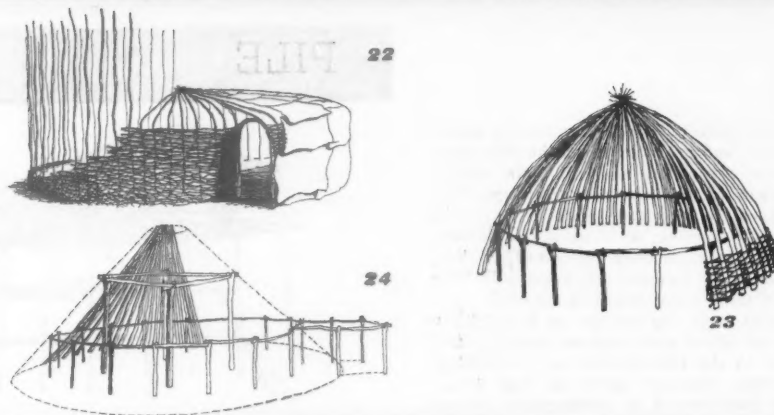
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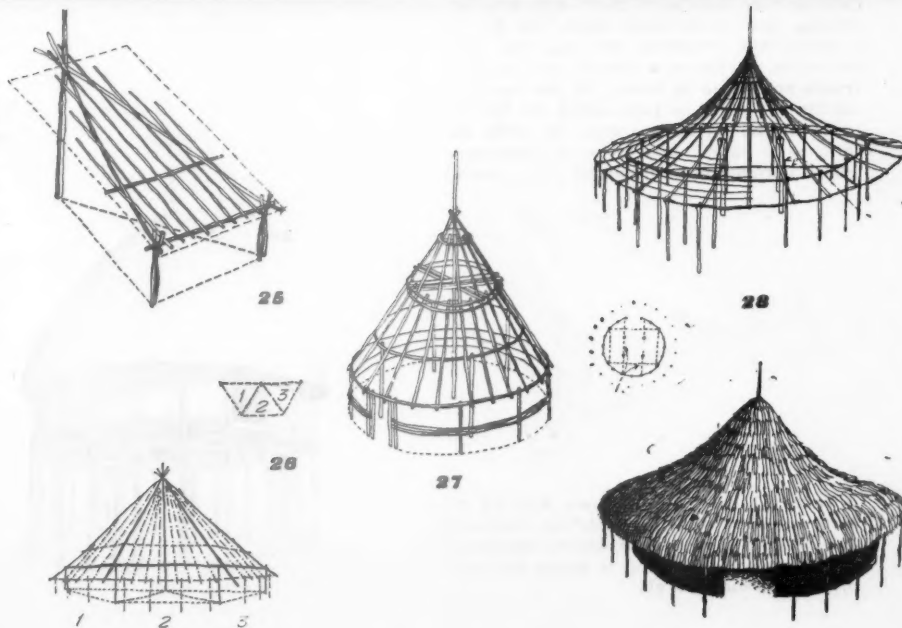
grid of these almost geodesic frames eliminates the need for battens to which the thatch may be hung, and although the covering may be complicated there is no real difference in structure type between thatched and matted houses of domical form. The ingenious matted houses of the Khoisan in South Africa, 19, on which the mats may be moved according to wind direction and other needs, and the skin-covered lodges of North American tribes, 20, both belong to the same family of structures as the most primitive thatched huts, and it is only with the teepee of the Plains Indians of North America, 21, which is almost a tent, that we find a radically different structure.



Intermediate structures between walled and wall-less types arise naturally with circular plans in frame construction, and the spiral house of the Masai has vertical walls, 22, even though its thatched and mud-daubed structure is homogeneous and has no eaves poles. Other types, such as the thatched houses of the Wichita Indians, 23, and the turf lodges of the Pawnee and other tribes, 24, have eaves poles as a structural aid, without affecting the external appearance of the dwelling.



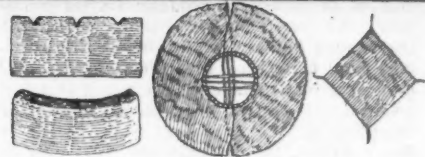
The stages by which a primitive shelter may become more sophisticated are shown in the banab, or rain shed of the Southern Guiana Indians. Originally a rough triangular shelter, 25, thatched with palm leaves, it wanted only the elementary discovery that these triangular units could be assembled into larger structures to launch a development which produced half-hexagon, 26, and hexagonal forms, and probably the circular huts of the slightly more advanced Waiwai tribes, 27, in the same area, but if the Waiwai hut is more advanced than the very primitive banab, it still lags a long way behind a really developed circular house-type like the Kikuyus' veranda'd houses with their complex structural layout, 28, and wide eaves to protect the mud-plastered walls from rain.



A highly developed demountable dwelling, used in variant forms by different Mongolian tribes, the yurt has walls of collapsible trellis, 29, a regular door and demountable door-frame, a roof of light poles, and the whole structure covered in felt mats cut to shape, securely lashed down by ropes arranged according to a traditional pattern which extracts maximum performance from the fewest ropes, 30. (See 4, 5, 6, p. 107.)



29

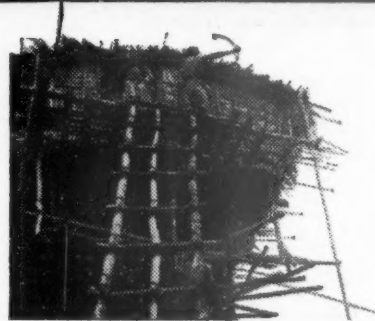


30

Commonly the product of a need for observation in districts where trees are the only usable points of vantage, the tree house shows every grade of sophistication from an elementary shelter whose form is largely governed by the layout of the branches, to determined attempts at order, both geometrical and functional, as in this house in Travancore State, 31, which employs an irregular and complex substructure to balance a simple rectangular frame-house on top of a tall tree, 32.



31



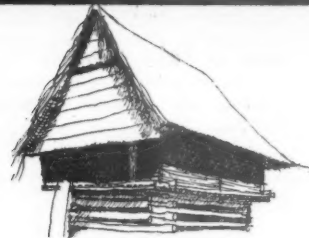
32

Though the Kamchadal have practically abandoned their subterranean block-houses, they still make occasional use of their stilted store-houses, 33, for summer dwellings. The elevation of these houses does not proceed from risk of flooding, as in most pile-houses, but from the need to store goods and food out of the reach of animals—an important consideration with a dog-breeding people.

As the tent is to the nomad, so is the pile-dwelling to island and seashore peoples, and so was it to the lake-dwellers of prehistory. The Nicobar Islanders build the roof structures of their round or rectangular houses on the ground, and raise them into position by a social effort (like a New England hoisting party) after which the thatching and flooring are completed, 34. The Koelwai of Celebes have developed three different, but related, types of elevated house; the first is a palm-plank structure with thatched roof, the whole resting on a substructure of palm trunks notched to lie locked, 35, the second is similar but raised on poles which are bedded in a 'chassis' of large trunks, 36, while the third is a more usual type of pile-house whose uprights are continuous from ground



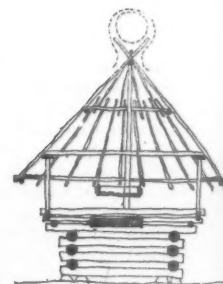
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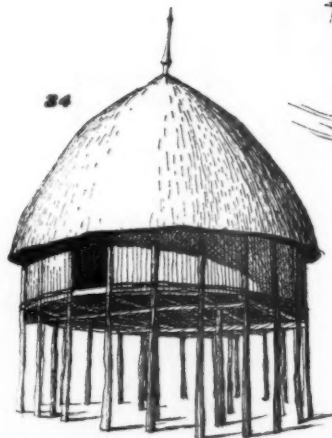
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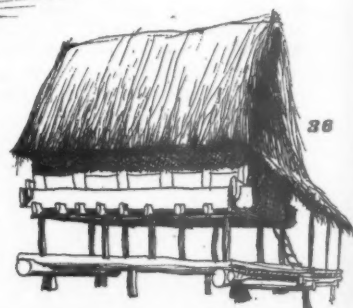
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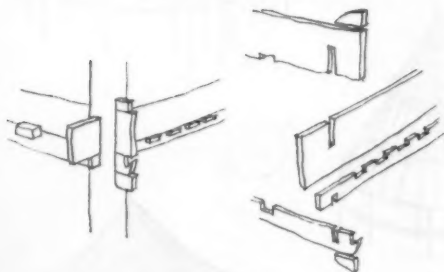
36



34



38



to eaves, 37. All three types are built by the same ingenious method of notching, mortising and wedging, shown above, and representing a technology which, indeed, is barely that of a primitive society at all.

or deified dead. The Egyptians built the Pyramids, while their kings dwelt in (no doubt quite elaborate) lath and plaster palaces at the same time as the mass of the people lived in huts. Of the buildings of the ancient Khmer in Cambodia only the stone temples have survived. The abodes of men were mostly huts and the palaces of kings but wooden constructions. It is true that there are some exceptions to this rule of stone houses being confined to communities in a fairly advanced stage of culture. In the hilly parts of Syria and the Caucasus, for instance, the humble dwellings of the poorer people are of stone, but there is no other material at hand. The houses are often rough enough and composed of dry courses whose interstices are stuffed with mud.

We may say, then, that up to the present time specialists are needed for making dwellings in regions where there is little wood and in areas where the climate is such that a solidly built house is a necessity—and this without reference to social and economic conditions.

Building, like all human activities, obeys varied and often conflicting impulses. Not only do archaic types of construction linger on for ceremonial or religious use, but in many parts of the world we may see buildings apparently ill adapted to the climate in which they are found.

A classical example of what we may think such ill adaptation is to be noticed in Japan, where the climate is, for the most part, rather cool and damp. Much even of the central island is under snow for some weeks in the winter. Yet it needs very careful examination to discover any difference between a Japanese dwelling-house in the sub-Arctic climate of Hokkaido in the north and a private abode in the almost sub-tropical conditions of southern Kyushu. As the Japanese

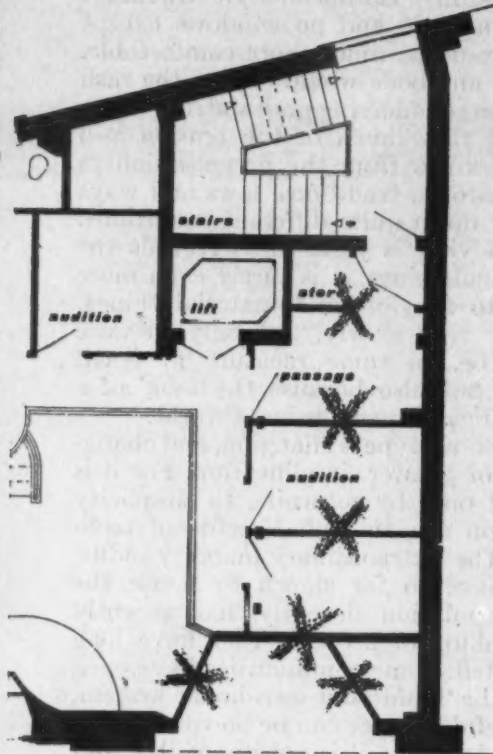
spread from south to north they took with them a type of house which was closely identified with Japanese culture. Even the poor Ainu in the northernmost island have forsaken their own thick-walled huts and houses for the fragile dwellings made fashionable by their Japanese masters. Europeans (and now a good many north Africans) in north Africa insist on living in stuffy European-style dwellings when a house with a patio and no windows except those giving on it would be much more comfortable. But to dwell in such an abode would expose the rash adventurer to the charge of having gone native.

It may be argued that much of the tension and anxiety of our days arises from the perpetuation in new conditions of customs, traditions, laws and ways of living which grew up in quite different conditions. And if this point of view is justified as regards the intangible and spiritual things, it is surely even more justified in regard to tangible and material things. House-types change very slowly, not only because buildings have to be, in some measure at least, adapted to climate, but also because the 'look' of a house is part and parcel of man's private world.

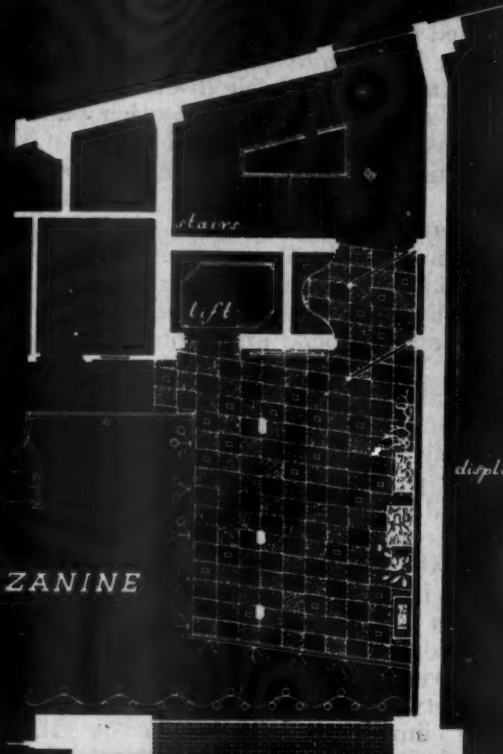
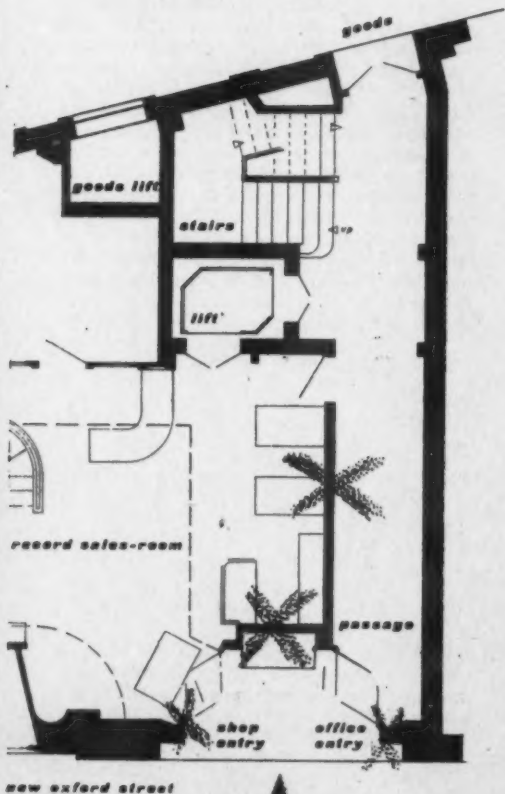
Nevertheless, the house-type is changing, and changing in the direction of greater simplification. For it is realized at last that only by returning to simplicity in house construction can the full benefits of technology be reaped. The extraordinary inability industrialized societies have so far shown to house the majority of the population decently has recently encouraged a rethinking of precepts that have long been taken for granted. Some communities have even experimented with the 'build-your-own-home' system. If, therefore, one useful practice can be borrowed from so-called 'primitive' building, it is not impossible that there may be others.

TWO SHOPS BY TAYLER AND GREEN

1 GRAMOPHONE SHOP IN LONDON



BEFORE



MEZZANINE

AFTER



GROUND

1, on the facing page, view of the redesigned entrance hall and mezzanine of Imhof gramophone shop. On the right is the window and entrance from New Oxford Street, which is continued as a full length mirror wall from floor to ceiling.

display wall

display wall

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as
rom





2



3



4



5

GRAMOPHONE SHOP IN LONDON



6

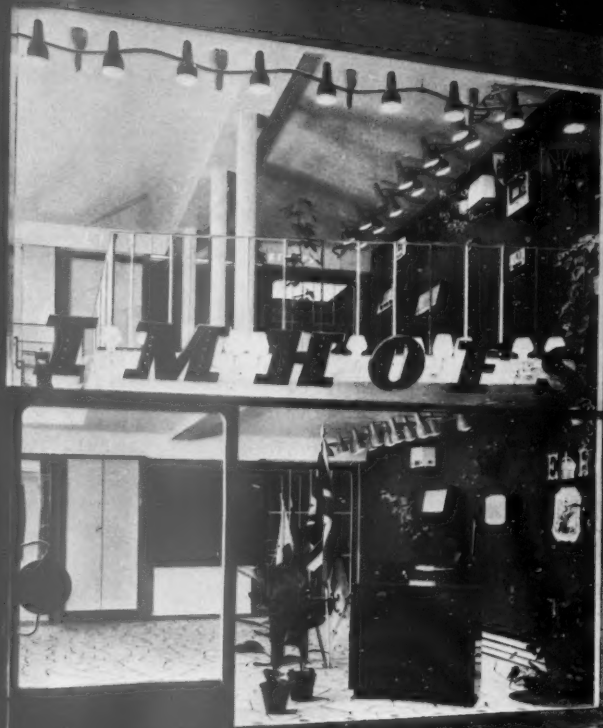
2, the window to New Oxford Street and the main entrance door. The mirror wall on the right reflects an unaltered part of the interior. 3, one of the plate glass signboards, with permanent lettering etched and temporary lettering painted. 4, mahogany framed stair lobby doors with ash linings. Lettering is cut-out with green neon light behind. 5, main entrance door of plate glass framed in polished copper. 6, the display wall. It is of scarlet linoleum with brass tubes at regular intervals pierced through into wooden studs behind allowing solid brass rods to be inserted for shelf supports. 7, on the opposite page, the window to New Oxford Street; 8, the same view before the alterations were carried out. 10, the ground floor looking from the mezzanine towards the display wall; the main entrance is on the right. 9, looking the same way before alteration.

The existing steel-framed building designed by Robert Atkinson in 1929 is on Crown Land and the exterior, designed in the usual strictly controlled manner, may not now be altered to any extent. It is the intention, however, to open up the shop to view from the street through the remaining windows and remove internal partitions in a series of alterations to be carried out in the future.

The first stage, illustrated here, has, by removing a passage on the ground floor and some gramophone record audition rooms on the mezzanine, enlarged the shop and formed a new entrance door and window. It was found that the mezzanine floor slab was suspended from the steel frame above and not supported from below, thus freeing the whole ground-floor shop area. As the upper and lower floors of the building are in the future to be used for retail trade, the existing lift and stairs had to be made more accessible and more obviously visible. The two doors and lobby to the stairs were an LCC requirement for fire regulations.

For the window to New Oxford Street, the existing opening was slightly widened, the frameless glass set well back and the reveals lined with white tiles to liven up the existing black granite facing. For the same reason bright metals (polished copper, brass, steel) were used on the outside and also a small new display window was pierced through the wide pier to the left of the new entrance. The door frame and the letters 'Imhofs' are in copper, the horizontal transome in brass. A small new display case on the wall next to the entrance door relieves the large area of existing black granite. The entrance door is kept single and very wide, being simpler for customers to operate and pass through; the weight of this large door, however, is not apparent when used due to the counterbalancing effect of the floor spring.

The inside of the shop opened up to the street becomes a large display area, necessarily more dependent on the quality of the display, which is arranged by the owners, than of the architectural background. The background is mainly in white and scarlet; white for the marble floor, ceilings, radiators and glass light fittings; scarlet linoleum for the facing of the wall at right angles to New Oxford Street. This display wall is punctured for the insertion of brass rods to support display items and plants. Subsidiary to the main white and red colours are: green (mezzanine columns, signboard near lift, plants and light fittings), grey (mezzanine floor) and the metals brass, copper and steel in light fittings and mezzanine balustrade and skirtings. An important feature of the interior is the large mirror covering the entire wall immediately inside the entrance door which helps to enlarge the restricted area available for the shop. A small illuminated display case set into the mirror wall helps to define the wall face for public safety, providing access through the wall to the display case on New Oxford Street. Between the lift and stairs is a signboard to guide the public to the other departments: lettering is on glass over dark green watered silk, one piece of glass listing the floors being acid etched, the other piece having temporary painted letters, changed when necessary. Electric lighting is all by tungsten lamps except in one place, the stair lobbies, where fluorescent tubes over an aluminium egg-crate ceiling are used.



7



8
9

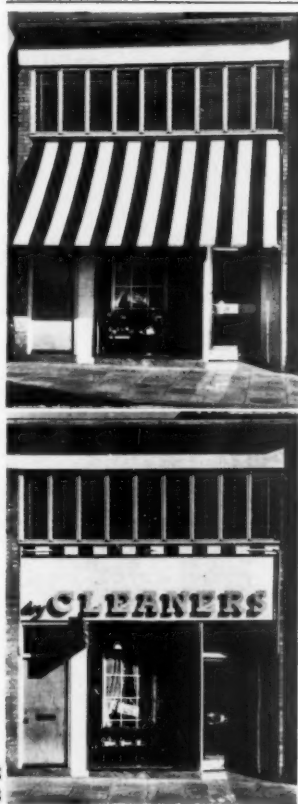


10



11, the mezzanine looking towards New Oxford Street. Columns are finished grey-green, the ceiling is white. The floor is of grey and white linoleum tiles with small insets in primary colours. The balustrade has a polished brass hand rail and vertical balusters of brass are polished, stove enamelled white and satin chromed alternately.

12 and 13, the exterior of the dry cleaners' shop. The side piers are of pale yellow local brick with cornice of hammered concrete and plinth of dove-grey marble. Ground floor windows are framed in stainless steel and upper floor windows are standard metal casements. The lettering, 'dry' in red and 'cleaners' in pale blue, is fixed to a white fascia. The sunblind is red and white. The shop door is mahogany framed and painted white, with middle and bottom rails of polished copper sheet. 14, on the facing page, the shop at night. 15, the interior; the wallpaper has a flowered pattern on a white ground; skirtings are pale grey and the floor red quarry tiles; the counter top is mahogany with a blue linoleum front on brass legs.



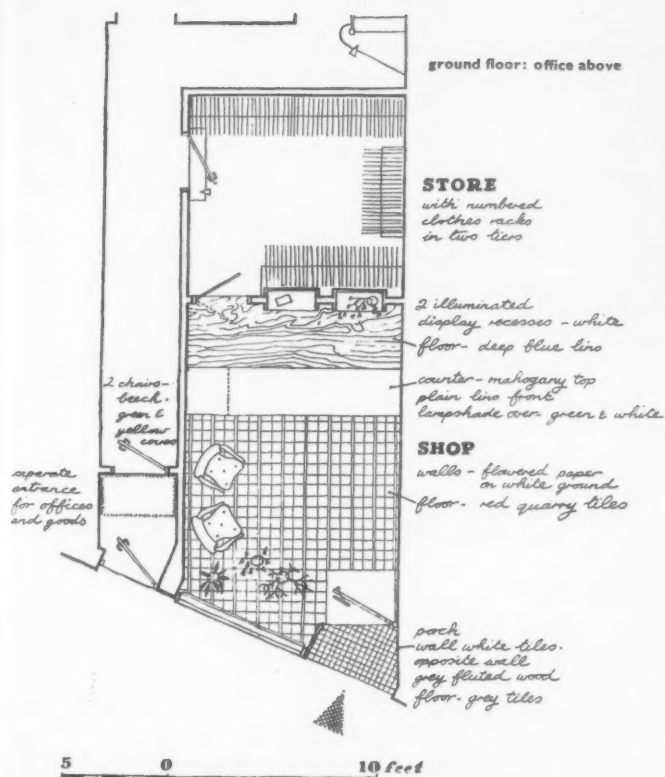
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13

2 CLEANERS SHOP AT LOWESTOFT

This building is owned by the laundry who occupy the whole ground floor. Following air-raid damage the front block was entirely rebuilt and the narrower existing portion at the back altered. The first floor is planned as a self-contained office for letting.

The shop has been kept small as there are no goods to display for sale, clothing being kept in a store with numbered clothes rails which opens off the shop. The small office at the back on the ground floor is used in conjunction with the shop and a separate door from the street serves for delivery of goods to and from the store and also for access to the first-floor offices.

The shop interior is domestic in character and aims at appealing to the feminine customer. As there is no display of goods the main furnishing is by the patterned wallpaper; a homely character being given by the chairs covered in gingham, the red quarry tile floor and the plants. Interior lighting is also deliberately kept domestic and intimate rather than shop-like and smart. A large shade in green and white fabric, suspended over the counter, is the main focus of the scheme and a yellow paper shade on a brass wall bracket above the two chairs adds to the informal atmosphere. The remaining lighting consists of five metal shades finished white across the shop window and entrance and two recesses behind the counter with concealed lighting above them.



dry CLEANERS



14

In all there are nine sources of light, all tungsten lamps.

The window display consists mainly of the interior of the shop itself. There is in addition a simple arrangement for supporting displays consisting of four vertical brass tubes fixed from floor to ceiling. These tubes are drilled in two directions to hold a variety of fittings, rods of various lengths and plant rings, all in polished brass. Two lighted recesses on the wall behind the counter provide the only other display space.

Outside the shop the word 'Cleaners' has blue neon tubes behind the metal letters, giving a silhouette at night against the white vitrolite which is reversed, with the ribbed face outwards, to avoid mirroring the neon. The word 'Dry' is in exposed white neon set into metal letters. The projecting sign is in white neon tubes in script letters on the surface of a metal box stoved violet.




15



The small houses of Sir John Vanbrugh are little studied in their own right, yet they form a coherent body of work, with its own laws, and two basic forms; miniatures of his Baroque palaces, above, or the distinctive toy-fort form, compact and with its parts clearly emphasized, seen in the drawings below, and discussed by Lawrence Whistler in the article which begins opposite.



Above, on the facing page,  Alms-houses by Vanbrugh at Linton-in-Craven, Yorkshire. Below, two among several recently discovered drawings, probably from Vanbrugh's own hand; left, detail of a house on three floors (see 9, p. 121); right, a diminutive version of the same house (see 10, p. 121) on the back of which Vanbrugh has written Coll. Lambert's House.

Laurence Whistler¹

VANBRUGH'S SMALLER HOUSES

Vanbrugh was always most effective when concerned with the large. His was not an accommodating or flexible form of talent. When called upon to provide a small 'dwelling house,' he applied to the problem those principles of mass, of 'movement,' and of emphasis, which characteristically governed his creation of a big one. But mass and 'movement' are hard to handle in a fraction of an acre, so that what chiefly emerged was emphasis: a building in which every feature was strongly pronounced—every impost, archivolt and blocking-course put, as it were, in italics. Clearly, it was done without reluctance—indeed, with gusto: with such assurance in fact, that it achieved a measure of success. For if his minor inventions rank humbly as works of art, some merit they do possess. They are confident and gay. They wear an engaging look of saucy resolution. They are picturesque, if also slightly comical, like a military moustache. Above all, they are very original, and unlike anything that would appear in England for some time. For Vanbrugh had two styles, derived from the baroque and the mediaeval, which he used, broadly speaking, on the big and little occasion respectively. It is with the second that we are concerned. A castellated tradition had never quite expired, but amounted to little by the end of the seventeenth century. Vanbrugh began to build toy castles for gentlemen to live in, even before other gentlemen were venturing on Gothic follies in the

farther and supposedly more primitive parts of their wholly civilized gardens, and many years before they discovered in the mediaeval (awful, rude, and horrid, as they knew it to be) an appropriate manner for a home itself.

Some would seek the source of his 'embattled manner' in Italian stage scenery, familiar to him, perhaps, as the promoter of opera in England. But it is probably enough to remember the man he was, and the place he grew up in. Vanbrugh had soldiered in youth, and was always something of a soldier at heart. It comes out constantly in his choice of a metaphor, when writing a letter: 'I hear your Grace was pleas'd to Storm my Castle yesterday. I hope next time you'll be so Gallant to let me know of your Design, which if I do, I'll endeavour to give you a Warmer Reception.' Moreover, he had spent his childhood in Chester, an ancient fortified city with a completely encircling wall, punctuated with towers, which seems to have become for him the archetype of defensive building. After thirty years' sojourn in the south, he wrote of 'a round Tower on the Walls of Chester, that I thought did extremely well,'² and took it as a model for the embattled outworks of Castle Howard.

But his revived mediaevalism was not that of the new century, in so much as it stemmed from the fortress, not the monastery. It was meant to be wrapped in the glamour of arms, not of superstition; to be brisk and not at all ruinous; to defy and not to

¹ On whose forthcoming book, *The Imagination of Vanbrugh and His Fellow Artists* (to be published by Art and Technics) this article is largely based.

² *Letters of Vanbrugh*, ed. Geoffrey Webb. Letter to Lord Carlisle, 1724.

nod. He wanted his little castles to appear energetic and virile: not bowed beneath the weight of centuries and shagged with ivy. And he never built ruins.

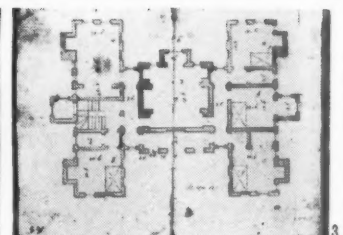
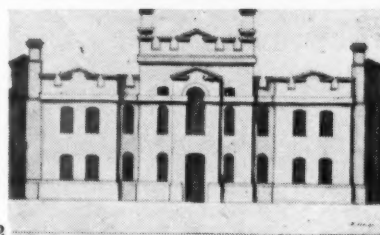
The word Gothic should be kept for those contemporary architects to whom the mediaeval was chiefly the religious. Wren was perhaps too near in time to the old tradition to have sentimental feelings about it. He looked at genuine Gothic with the cool regard of a classicist and an engineer, and found in it the faults of ignorance, together with a certain nobility, and a certain charm—'nice embroidered work.' When constrained to use the manner himself, he cheerfully introduced modern elegancies, like the ogee dome and cap, to give a skyline from which almost all ruggedness had been smoothed away. The result could be attractive enough: the sucked Gothic of Tom Tower and St. Mary Aldermary.

Hawksmoor was full of reverence for the antique—none more so. But for him antiquity was Rome. His Gothic is of more than one 'flavour,' like his classical work, and is largely picturesque, without being capable of much sentiment. It is with Kent and Gibbs and their contemporaries that we first encounter a Gothic saturated with antiquarian feeling—a Gothic whose main function is to invoke a superstitious past. Gables are crenellated almost to their knees. Buttresses abut on nothing. Heavy-eyebrowed belfries bespeak hermits. Gibbs's Gothic Temple at Stowe may be his one venture in the style, but it stands for numberless constructions that followed, and compares amusingly with Vanbrugh's circular redoubt in the same estate (later modified and renamed the Bourbon Tower). Gibbs's crooked turret pleads constantly for bats. Vanbrugh's machicolations call even now for the sudden white roses of thudding cannon smoke.

The earliest of Vanbrugh's little houses may have been his own in Whitehall, designed in 1700³, 1. Built of red brick, and probably square in plan, with four turrets pertly advanced at the angles, it was a toy castle in embryo, though perhaps not actually castellated: Swift compared it to a 'Goose-Pye.' The manner was more fully developed, a few years later, it appears, in the architect's country house at Esher, 2 and 3⁴. Notice the symmetrical plan, and the love of (vaulted) corridors and interior vistas—very typical features. Bought by the future Duke of Newcastle after 1711, it became the centre-piece of Claremont.

But it was on the top of Maize Hill, above Greenwich, that Vanbrugh gave fullest expression to his unusual ideas. There, on a small estate of his own that might well have been called 'The Adelphi,' he began in 1717 to put up three houses, one for himself and one each for two of his brothers. Recently, there has been some confusion over their names. His own house fortunately survives, and is known to this day as Vanbrugh Castle, 4. Then there was a single-storey house called the Nunnery at first, and Sherwood at the time of its demolition, 6. But it was never called Mince Pie House. That was a Georgian nick-name for a third building, afterwards known as Vanbrugh House, and now also demolished.

These houses, and the mock-defensive archway giving entry to the estate, were placed, not symmetri-



1, probably the earliest of Vanbrugh's small houses, his own house in Whitehall designed in 1700, illustrated here with later additions.

2 and 3, elevation and plan of Vanbrugh's country house at Esher, Surrey. Bought by the future Duke of Newcastle after 1711, it became the centre-piece of Claremont.

4, Vanbrugh Castle the only surviving one of three houses on the top of Maize Hill above Greenwich, which were begun in 1717.



cally or regularly, but at angles along a curving road. We have here, in fact, the earliest example of picturesque planning applied to a residential estate; and thus the venture is of some interest today. No less original was the appearance of each building. Vanbrugh Castle avoided complete symmetry from the beginning, with its doorway placed on one side of a slim tower, and dispensed with it altogether in additions made by the architect (which can be distinguished from later additions). It has most of the typical Vanbrugh features, in little: square and circular towers containing stairs or closets; vaulted corridors; bow windows on every floor, paying tribute to a notable view across the river. So, too, had vanished Mince Pie House, 5,⁵ where a different arrangement of the same very simple elements recalled, in the plan, Seaton Delaval.

Of the vanished Nunnery, we have had, hitherto, very little idea—so altered was it in the last century. But I have been able to reconstruct it, by comparing a survey made by Mr. P. B. Dannatt, in 1911,⁶ with

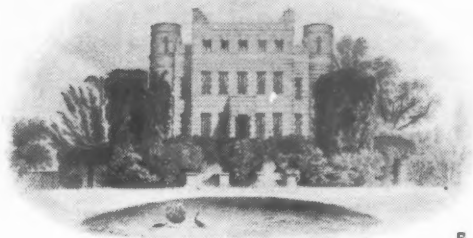
³ P.R.O. LC5/153, p. 9.

⁴ Drawings in Vanbrugh coll. V. & A. Museum: D94.91 and D124.91.

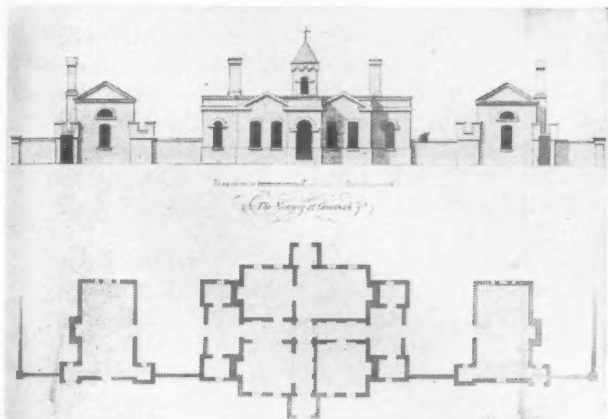
⁵ From views in the possession of Mr. A. R. Martin, of Blackheath.

⁶ Reproduced with photographs in *Transactions of the Greenwich Antiquarian Society*, Vol. I, No. 3.

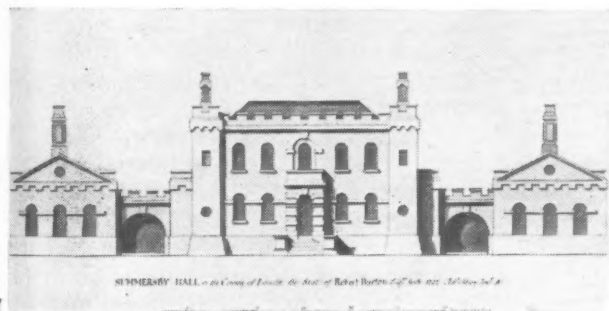
5, Mince Pie House, Greenwich, a nineteenth century view. 6, elevation and plan of The Nunnery, Greenwich, now demolished, drawn by the author. 7, design for Somersby Hall,¹ Lincolnshire: the centre part, which still survives, is shown as it was built. The drawing is probably by Vanbrugh. 8, 9, 10 and 11, recently discovered drawings probably from Vanbrugh's own hand.



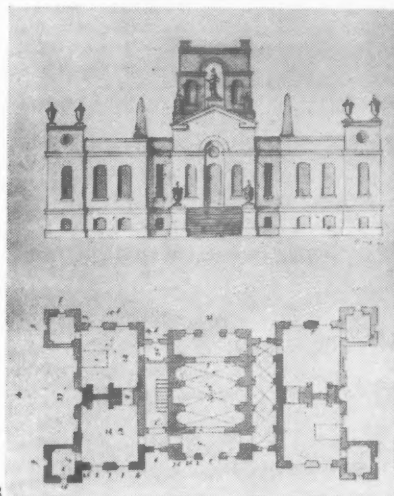
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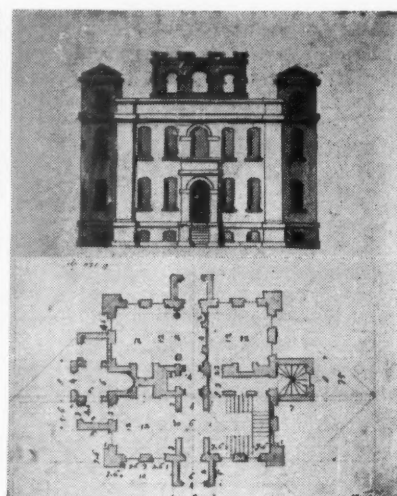
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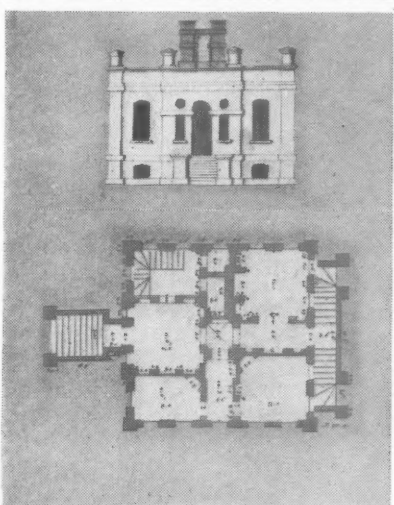
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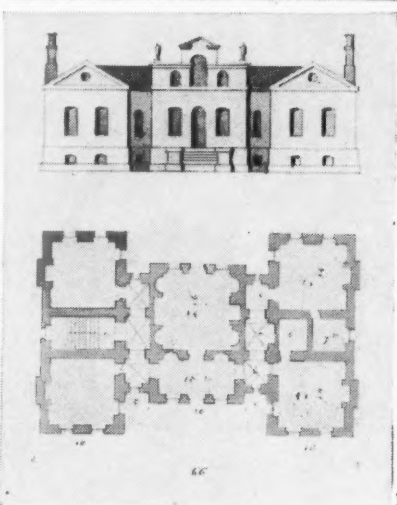
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9



10



11

a recently discovered sketch by William Stukeley, dated 1721.⁷ A very credible—if also odd—little Vanbrugh house emerges. There is always, in his planning, a recognizable clarity, achieved at some cost in squandered space. Here is a centre block with a hall opening through elliptical archways on to corridors, one of which runs the entire width of the building. The middle of the house is lit from above. On each side are detached blocks, one obviously containing the kitchen.

Observe that this brief description would apply literally, item by item, to Blenheim! At the Nunnery, the theme is reduced to its smallest terms. It is all on one floor. Even so, there was room for a touch of the relished grandeur: the arched opening beyond the arch: a hint of the glamour of theatrical wings. We do not know what special requirement was met by this early design for a bungalow; but from the name, and from the cross on top, it was clearly an architectural joke—like that which afterwards hit upon the nickname, La Trappe, for Bubb Dodington's house at Hammersmith.

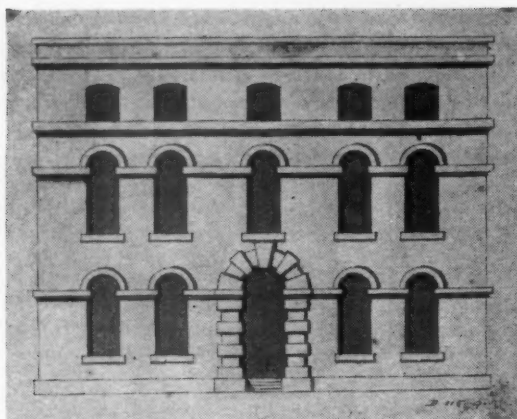
⁷ Society of Antiquaries' library.

We may venture to say that when a building was designed and also supervised by Vanbrugh, it had conviction in the large, and its own kind of orthodoxy in the very simple detail. Vanbrugh is odd, original, outrageous—but in his own way. When a building in the manner lacks this quality, there are two possible explanations. It may have been wholly the work of an imitator; or Vanbrugh may have provided a sketched elevation and plan, leaving them to be interpreted by some one else. The second alternative probably explains, for example, Somersby in Lincolnshire, 7, where the plan has much in common with the Nunnery, and the full elevation looks authentic, on paper.⁸ But only the centre block survives, and some of the detail, as executed, is doubtful.

Several recently discovered drawings, probably from Vanbrugh's own hand, now add to our collection of his minor designs.⁹ These constitute a group within a group; for while they are formed on the principles that govern the 'embattled manner,' they

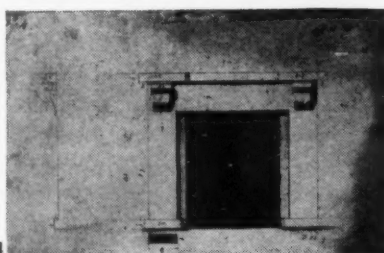
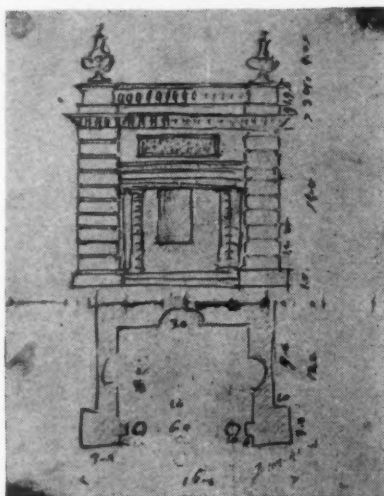
⁸ Lincoln Public Library: *Nattes' Drawings*, Vol. III, p. 309.

⁹ V. & A. Museum: Vanbrugh coll.



12, design by Vanbrugh for a street front. 13, design for a garden pavilion: Vanbrugh's own drawing. 14, a sketch by Vanbrugh for a chimney-piece.

15, design for a simple fireplace in the small tower built by him for his little boy at Greenwich.



eschew even battlements and corbels, the simple ornaments it permitted; and in most of them classical ornament is avoided as well.

In the least austere and most engaging design we do have a skyline abnormally gay, with little turrets, urns and obelisks, a statue on a pediment and a massive central feature of arched chimneystacks, 8. There is only one bedroom and another small room on

each side, while much of the space is devoted to corridors and lobbies, and a spacious vaulted hall, with niches for statuary—one corridor quite pointless, except as a tribute to symmetry, and an excuse for more vaulting. The front is rather in the manner of the Nunnery, but the plan strongly recalls his Esher house. It is also like a miniature Eastbury, only with hall and saloon merged in one, and with two rooms on either side, instead of three. So we are not surprised to find one of Vanbrugh's free-hand sketches for Eastbury on the back of this paper. In the Worcester College Library at Oxford there is a variant of this project, outwardly duller, but inwardly a little less wasteful, 11.

12 A less frivolous design is one for a house on three floors, 9. Here it is the front which has something of Eastbury in it, while the plan, with its staircase tower projecting, recalls Seaton Delaval—and that, again, links it with Mince Pie House at Greenwich. The date of these designs is therefore not difficult to guess: they should all belong to the last eight years, or so, of Vanbrugh's life: c. 1718–1726.

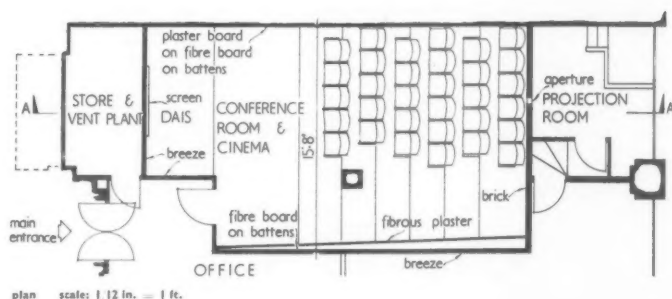
A third design is in plan a diminutive version of the second; and on the back of the elevation Vanbrugh has written: 'Coll. Lambert's house,' 10. Still a fourth has come to light at Blenheim, though in the plan only.¹⁰ Here a compact little house is attempting, as it were, to be a Grimsthorpe; for it is given a deep forecourt, enclosed by projecting walls that end in pavilions.

Having invented the manner, it is easy to see why Vanbrugh employed it as a matter of course for little buildings, and for bigger ones that had to be cheap—like some of those for the Board of Ordnance, ascribed to him by me in THE ARCHITECTURAL REVIEW for December, 1952. It dispensed with those classical ornaments—cornices, urns, pilasters, etc.—which he described as 'the great expensive part' of architecture. Other distinguished architects had to dispense with them too, on humble occasions, and then they 'spoke in the vernacular,' as we say. From the Restoration to the Regency they inherited, and quietly developed according to the ideas of their generation, that reticent, harmonious and dignified manner of building which has enriched almost every village and town in the country. Honour to the language that Vanbrugh was not born to speak! It was not his destiny. He must have rhetoric. He must have it, not at any price, but at a price calculated to be paid by his employer. There was all the rhetoric you could want, he evidently felt, in plain red brick-work used in the right way.

¹⁰ Blen. muniments. 'Old Plans.' No. 3. c.



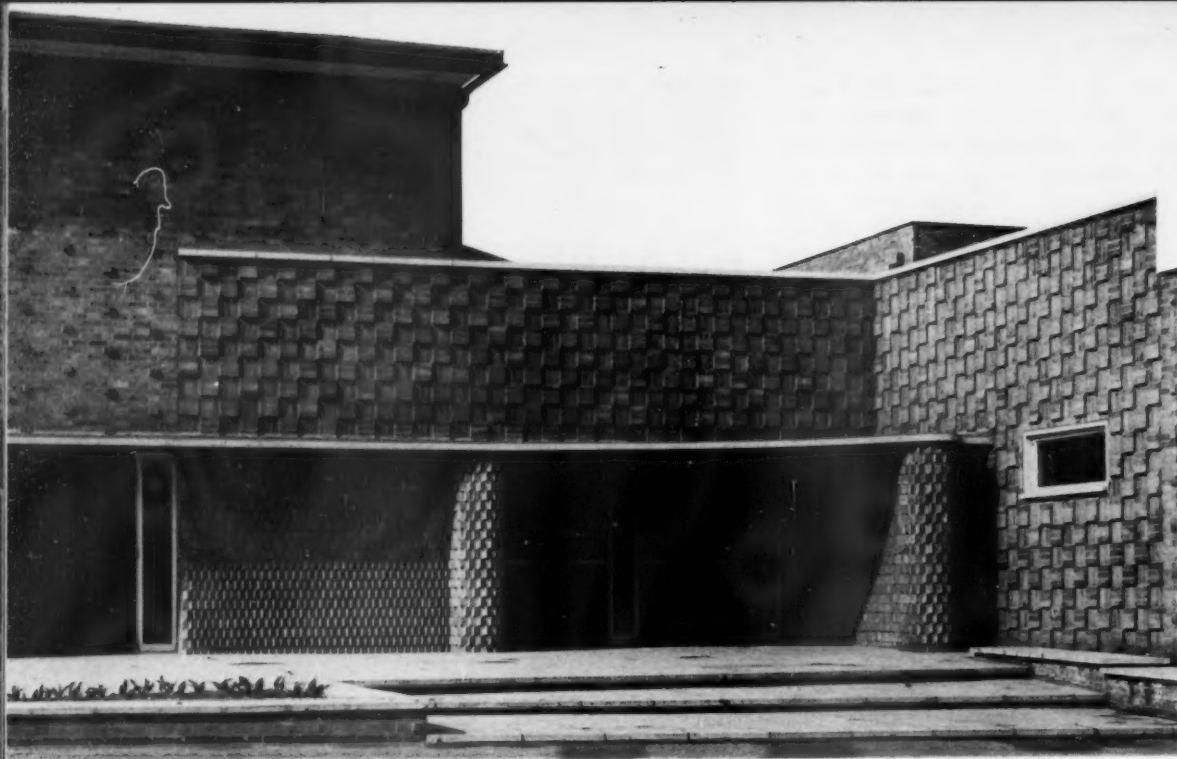
1, the auditorium looking towards the dais.



PRIVATE CINEMA IN LONDON

ARCHITECT: C. H. ELSOM

This private cinema and conference room, near Oxford Circus, which seats 32 people is designed for the showing of 16 mm. films of the client's products to home and overseas buyers, thus in many ways overcoming the necessity to visit several factories in different parts of the country. The plan had to conform to the limitations imposed by the existing building and LCC regulations that required the projection box to be sited on an external wall. Due to these factors the entrance door is at the screen end. One wall is of fibrous plaster and curves to form the ceiling: wall and ceiling are finished blue-grey, panels being marked out with a recessed white line. The other wall is faced with walnut veneer. The carpet is fawn and the square column cream. Seats are of pressed steel and aluminium, upholstered with latex foam and covered with vermilion material. The curtain which covers the screen, designed by Eduardo Paolozzi, is grey and white.



2

2, the main entrance from the south. 3, a general view from the south-west. 4, part of the main staircase in the administrative block, which forms an emergency escape from classrooms. The ceiling is finished with papier-mache egg trays, painted off-white, between insulation-board panels painted red.

SECONDARY SCHOOL AT STANFORD-LE-HOPE, ESSEX

GERALD LACOSTE: ARCHITECT in association with H. Conolly, County Architect

Hassenbrook Secondary School, for the Essex County Council, was one of the first to be completed under the MOE recommendations of October, 1949, and in accordance with the provisions of pamphlet No. 209. It accommodates 600 pupils.

A compact plan with close interrelation of units was considered essential to reduce costs. First floor corridors have been omitted entirely, and access to classrooms and science rooms is by staircases;

layers took well to the unusual brick treatment. The assembly hall, dining room, staircases and corridors are finished internally with facing bricks, either buff rustics or yellow and dark brown flint bricks. Straight joint soldier courses and exposed leader bricks were used. Ceilings are of insulation board in 4-foot squares. Floors are finished with hardwood blocks, linoleum or concrete paving. The nett cost per place on tender is £270.



connecting doors between rooms for use of staff also provide means of escape. Cloakroom space is provided in ground floor corridors. For reasons of economy the classroom block is on two floors and the science block on three.

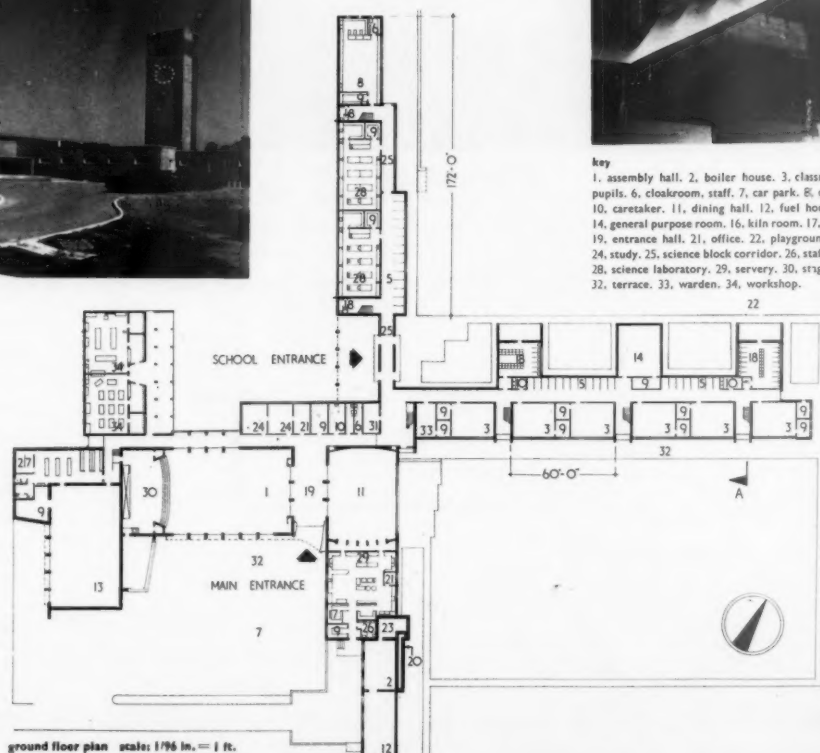
The building is steel framed with external cladding 11-inch cavity brickwork, with the exception of the assembly hall and gymnasium block which, to save steel, are in 18-inch load-bearing brickwork. Roofs are constructed of aluminium decking supported on light steel trusses or rsj's.

The architect has endeavoured to make a feature of the brickwork and revive interest in its combined decorative and structural uses. There are panels of basket and dog-tooth patterns to the entrance and on the gymnasium block. It was found that brick-

4



key.
1, assembly hall. 2, boiler house. 3, classroom. 5, cloakroom. pupils. 6, cloakroom, staff. 7, car park. 8, craft room. 9, store. 10, caretaker. 11, dining hall. 12, fuel house. 13, gymnasium. 14, general purpose room. 16, kiln room. 17, larder. 18, lavatory. 19, entrance hall. 21, office. 22, playground. 23, pump house. 24, study. 25, science block corridor. 26, staff room. 27, showers. 28, science laboratory. 29, servery. 30, stage. 31, switch room. 32, terrace. 33, warden. 34, workshop.





6 RESEARCH BUILDING, GLASGOW UNIVERSITY

ARCHITECT: BASIL SPENCE

5, the south and east façades. 6, the monobeam stair which rises from the main entrance hall.



The extensions to the Natural Philosophy Department at Glasgow University have been built to house the 300 million volt synchrotron and give facilities for nuclear research and the teaching of nuclear physics, all in conjunction with the original natural philosophy building. There are very special provisions made to give complete protection from radiation and noise transmission including a 150-ton sliding roof over the synchrotron machine. A future wing will accommodate teaching rooms, which are not included in the present scheme. The site, previously occupied by tennis courts, is in the middle of the university and is very restricted. Access was only permitted on the north and west sides and adequate light had to be left for the botany building to the north and on this side access had to be allowed for very heavy loads to the synchrotron rooms.

Since the synchrotron beam had to be directed into the hillside, the synchrotron rooms were placed underground. The clients required that the synchrotron and all associated gear should be accommodated as soon as they were built, regardless of the state of the building as a whole. The standard research room unit on a 16-foot grid is repeated on certain floors on either side of a central corridor, where services are carried in the ceiling. The building has an encased steel frame and walls which have a 9-inch brick inner lining and a 2½-inch Portland stone outer skin.

Exterior brickwork consists of silver grey facing bricks and the rubble base to the building is of Blaxter sandstone. Window frames are in anodized aluminium.



7, a group of three-bedroom terrace houses.

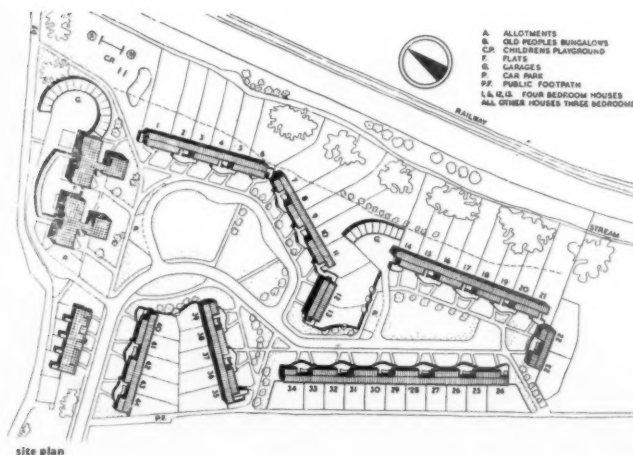
8, two linked blocks of flats from the west.



HOUSING AT ESHER, SURREY

ARCHITECT: ERIC LYONS

This housing scheme for the Urban District Council, consists of forty 3-bedroom houses, four 4-bedroom houses, eighteen 2-bedroom flats and four old people's bungalows. Provision has been made for 28 garages to be built at a later date. To prevent the railway embankment on the east of the site dominating the estate, the buildings are grouped round two greens. The larger of these forms the focal centre of the scheme, with the 3-storey flats and the bungalows forming a contrast to the blocks of houses. It is hoped that planting will be carried out shortly. The houses have been planned to suit almost any orientation by the use of a through living room leading to a terrace at the rear. The flats were planned in T-shaped blocks for economy, to create enclosures giving some privacy to ground floor flats and to make possible the retention of a number of orchard trees. The old people's bungalows are planned with a partly-covered porch and a bay window, so that the occupants can have the opportunity to observe some outside activity.



LUDLOW

BEWDLEY

➔ EVESHAM

SHREWSBURY

TOWNSCAPE

Gordon Cullen

A continuation of the experimental series of townscape studies of four West Midland towns produced in collaboration with the Extra Mural Department of Birmingham University

Midland Experiment

EVESHAM

An art gallery presents the viewer with a number of self-contained, framed, works of art. He looks at one, then at another and a third. But in each case he starts afresh, he leaves one and his eyes go into 'neutral.' The next picture is a new experience.

A town can, in some ways, be likened to an art gallery for it should have its 'set pieces.' The high spots—the dramatic spots—the intimate places—High Street, Town Place, Churchyard and Park.

But the parallel breaks down when we come to look at them because these set pieces are not hanging on the wall, not framed. They are next to each other, touching, and stand in three dimensions and you walk from one to the other so that the eye does not go into neutral but continues. One scene gives place naturally to another, providing scope for the exercise of skill in the way in which the transition is effected.

The two previous articles in this series—Ludlow and Bewdley—were concerned with pinpointing particular characteristics. In the case of Evesham several facets of the town are portrayed: the river bank, the park, the secluded churchyard, the market square and the High Street. But the reason for this is to emphasize the link that joins them—the pedestrian way. Fortunately for Evesham a great part of this link is ready made. Thanks to the medieval monastery a wedge of traffic-free space drives right up from the river into the centre of the town and the High Street which bears down on to it suddenly veers off to the right leaving it intact.

Selling the dummy one might call it. For the pavement of the wide High Street—the beginning of the pedestrian way—obstinately continues on its own to join the wedge after a game of hide and seek with traffic. So with only one break a pedestrian way stretches through Evesham linking the diverse characteristics of the town into a coherent unfolding story. As we make this tour proposals will be made from time to time to increase or intensify the personality of the focal points: a pedestrian sequence is useless if the kind of variety these can provide is lacking.





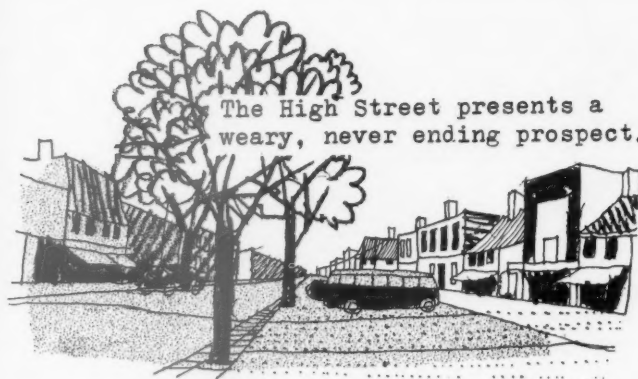
a selling the dummy

The secret of Evesham's uniqueness is the wedge of traffic free space that stretches from the river, E, right up into the centre of the town, in fact to the Market Place, C, providing within the triangle CDE an easily accessible retreat from the traffic-laden streets.

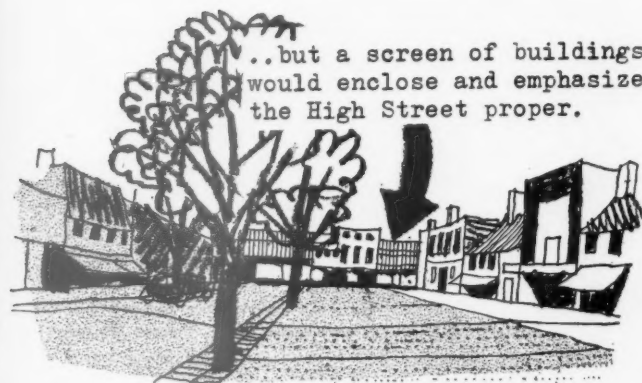
The High Street points directly at the heart of this wedge, but at the critical point 'a' it veers away and leaves the area free for pedestrians (an after-effect no doubt of the mediaeval abbey which once occupied the area). It is this simple and valuable arrangement which makes possible the conception of a pedestrian way running right through Evesham for, as will be seen on the air photograph, the High Street is wide and the traffic route arranged to one side so that the pedestrian portion is free to go its own way and penetrate the wedge at B.

The sequences show how the several parts of the pedestrian way are linked.

b the High Street



The High Street presents a weary, never ending prospect..

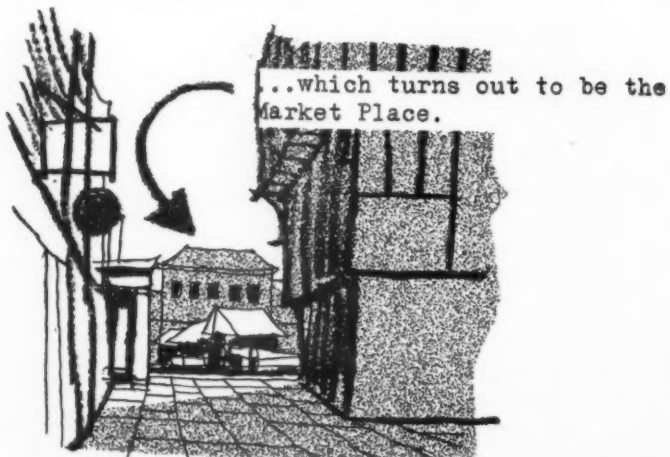
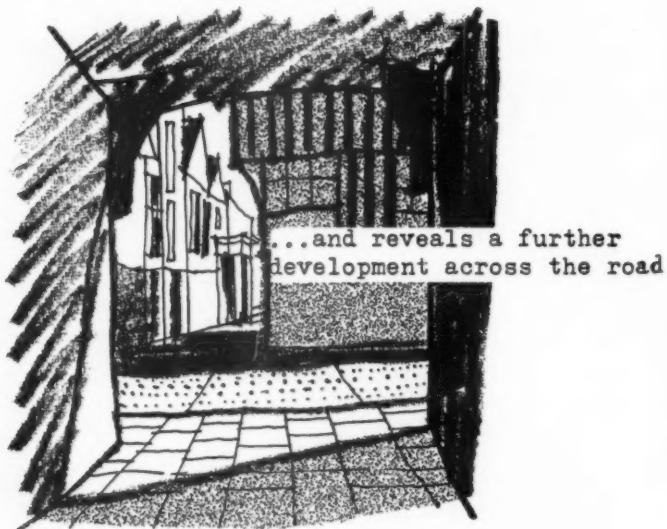
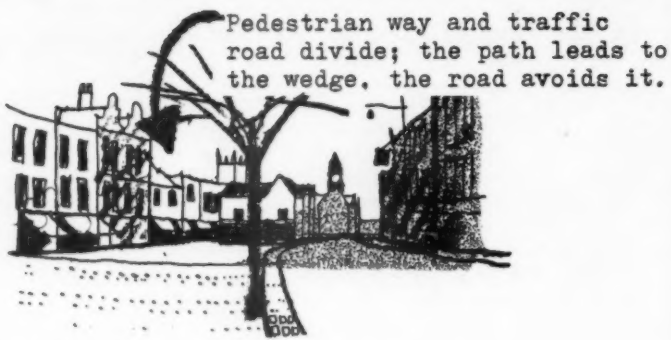


..but a screen of buildings would enclose and emphasize the High Street proper.

The High Street, being a definite and recognizable element of the town ought to be seen as such. In Evesham, however, although the view from the High Street to the centre is all that could be desired, the view looking out is depressing because of the extreme length of the road which somewhere ceases to be a High Street and becomes 'Station Road' or the A485, or something quite different and boring.

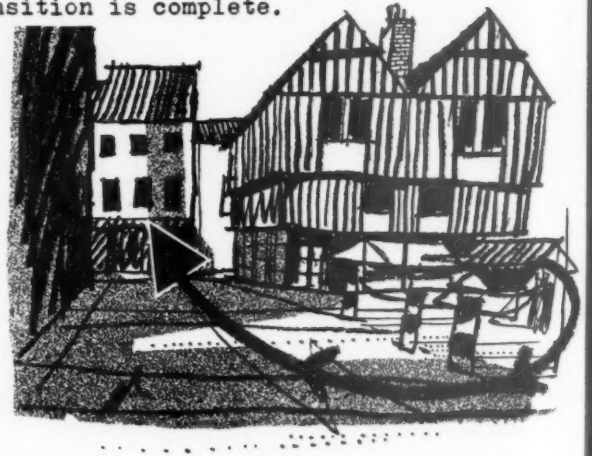
It is suggested that to enclose and emphasize the High Street proper a screen of buildings, leaving an underpass for traffic, situated at the corner of Swan Lane, be considered in future development.

sequence from High Street to Market Place 

sequence from High Street to Market Place**C the Market Place**

The Market Place marks the junction of busy streets and pedestrian wedge and succeeds in its small area in securing enclosure whilst allowing traffic to circulate through one side of it, leaving the major portion pedestrian.

Turning round in the Place the expected view back along the High Street is screened off. The transition is complete.

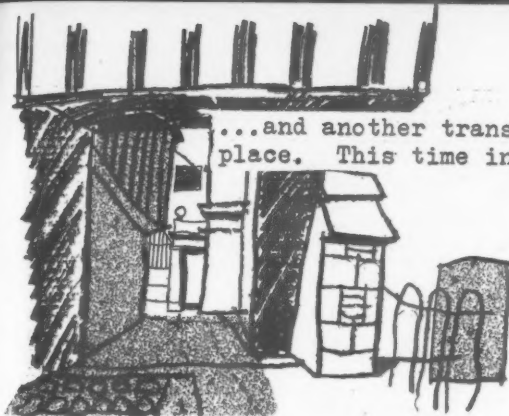
**sequence from Market Place to Park**

Leaving the Place, which is lively, compact and important (library, post office, fire station)....

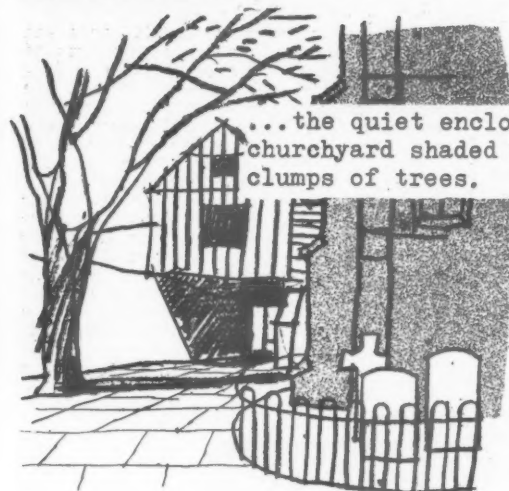


...a narrow lane withdraws...

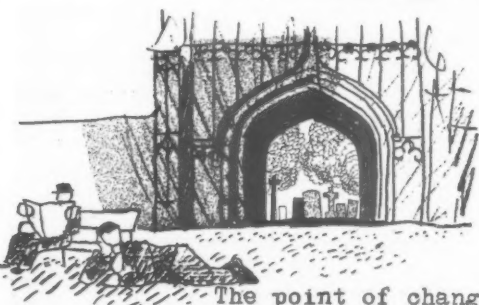




...and another transition takes place. This time into.....



...the quiet enclosure of the churchyard shaded with large clumps of trees.

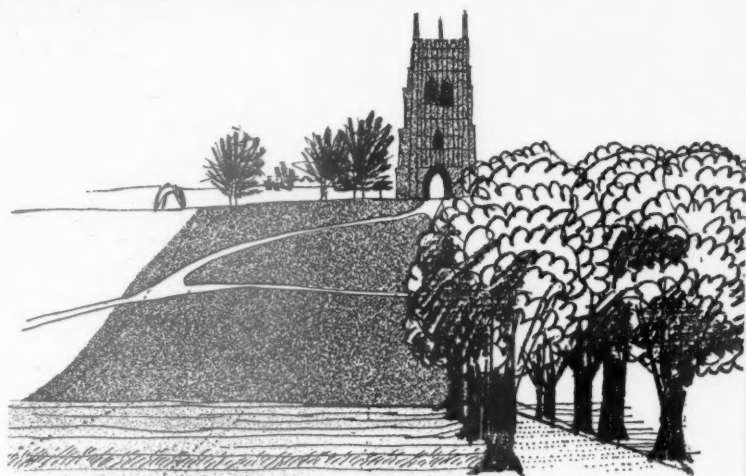
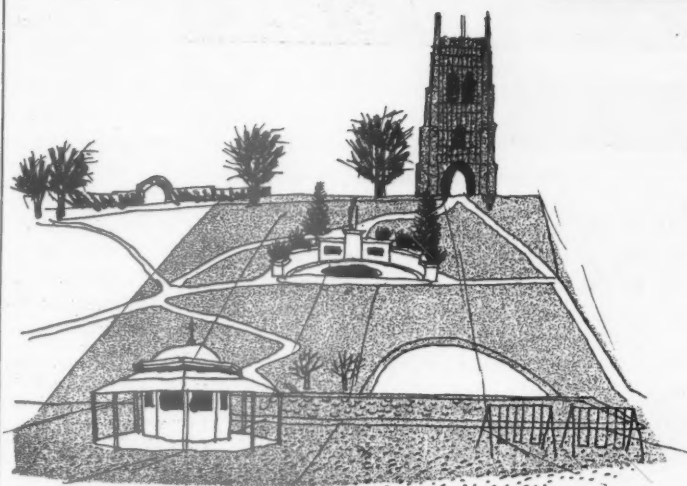


The point of change between the churchyard and the park is marked by a lofty belltower.

d the park

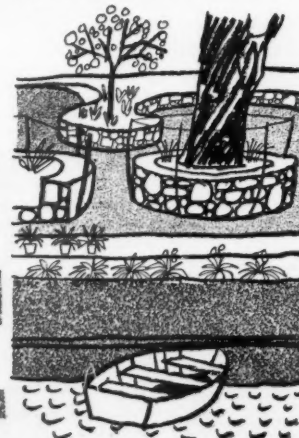
There is drama and form in natural things, and the level riverside mead backed by a rising grassy slope has form in its own right. It is dramatized by trees and the silhouettes of towers on the crest. What more is needed?

It should not be regarded as empty space which needs filling up with civic ornaments to 'make it look nice.' Nor should it be regarded as a convenient empty space to put these things simply because other sites are difficult to find. War memorials, paddling pools, shelters there must be, but the answer is not to scatter them about indiscriminately but to site them with proper regard to the inherent drama of the site. (Bearing in mind that anything placed on a slope will be more visible than the same thing on a level surface.) The two sketches in the next column show, respectively, the incoherent assembly of objects as it appears today and, below, the scene as it might be. The Bell tower dramatically emphasizing the emergence of the pedestrian way into the park and a grove of trees orientated on the gateway forming a link to the next section of the pedestrian way, the riverside. For the rest the grassy slopes and levels provide a natural drama in contrast to the built-up town.



e the river

The pedestrian way is completed by the riverside walk, made interesting by pleasure craft and racing eights (and also by admirable tree planting and riverside treatment). When, however, the landing stages and service buildings occur a strange thing happens. At first the treatment is excellent, and perpetuates the clean functional design of the waterside tradition. But beyond that, closer to the bridge, the touch is less assured, the river vernacular disappears and gives place to 'municipal rustic.' If there is a place for this curious form of popular art it is certainly not on the riverside where it simply destroys the natural junction of town and river.



CRITICISM

MUMFORD ON ENGLISH URBANITY

Mr. Lewis Mumford's impressions of English architecture, based on his visit to England in the summer, are given in a series of articles he has since contributed to the *New Yorker*. He gives special attention to two undertakings, the Lansbury Neighbourhood and the new towns. Lansbury, though admired as an example of comprehensive redevelopment by a local authority, has been criticized in this country for the dullness of its architecture and for its failure to perpetuate the close-knit planning tradition of the East End. Mr. Mumford, however, is nothing short of enthusiastic. He describes Lansbury as—

'a splendid example of urban building, the best I have found in England, and perhaps the best thing that has yet been done for lower-income groups anywhere. . . . Here is space without social dispersion, urbanity without social stultification, variety without infantile caprice, and, as far as design goes, a fresh form based on a traditional pattern but reinterpreted in terms of modern needs.'

It is the openness of the planning and the variety of building forms that seem to appeal to him most.

'When, in the early Victorian days,' he writes, 'model-housing associations tried to improve conditions, they held fast to the principle of congestion and simply attempted to make it a little more orderly, to which end they introduced five-story walkup tenements—grimly hygienic, hideously decent. Lansbury Neighbourhood has ignored this dismal compromise, a modish 1953 example of which is the Pimlico development, and gone back to the human scale of the earlier houses, but with a variety of form that puts to shame the jerry-builders who made vast segments of London a nightmare of two-story monotony. In pleasing contrast to Pimlico, Lansbury houses only a hundred and thirty-six people to the residential acre. Though that is above the acceptable standard, it is reasonably near to it for a necessarily urban design, since the generous open spaces provided for its schools and its playgrounds, its market, and its future green pedestrian walks bring the over-all density down to around seventy-five people to the acre. When one contrasts this with the three hundred to four hundred and fifty an acre provided for by the New York City Housing Authority, one can only shake one's head.'

In the concluding paragraph of this article he expresses the view that—

'the reason Lansbury Neighbourhood has turned out to be so good is simple. Its design has been based not solely on abstract aesthetic principles, or on the economics of commercial construction, or on the techniques of mass production, but on the social constitution of the community itself, with its diversity of human interests and human needs. Thus the architects and planners have avoided not merely the clichés of 'high rise' building but the dreary, prison-like order that results from forgetting the very purpose of housing.'

With this assessment in mind, the reader of the next article in the series, dealing with the new towns, might have expected praise equally unreserved, especially because Mr. Mumford has for many years been an advocate of the low-density

garden city type of planning. But he is a critic who uses his eyes as well as his intellect, and his verdict, after seeing the English new towns in the flesh, contained many unfavourable judgments. He describes, for his *New Yorker* readers, the origin of the new towns in Ebenezer Howard's theories and the basis of their revival in the post-war programme.

'The best of the younger generation of town designers, such as William (now Sir William) Holford and Gordon Stephenson, flocked at once to the new Ministry of Town and Country Planning, and it seemed as if the New Towns would be new not merely in political and social constitution but also in architectural expression. So far, this last hope has been frustrated. For reasons it is difficult to trace, the more creative minds dropped out of the Ministry, and, even though some able architects were called in, only here and there do the New Towns express the new principles of planning or the new needs and possibilities of contemporary life.'

Mr. Mumford, as was to be expected, does not overlook the historical background against which the new towns must be judged:

'If one comes to a New Town from the appalling Black Country or from the more sordid industrial areas of London, the contrast is almost unbelievable. England's experience in planning Trading Estates, its name for industrial areas designed to facilitate both production and transportation, has stood the New Town in good stead. The industrial zone of the town is no more than fifteen minutes by bicycle from the remotest residential area, even though the low density of population spreads the inhabitants fairly thin.'

From there he goes on to describe the defects that have arisen from thus spreading the buildings so thinly:

'... because the pattern is essentially a loose one, the innovation (green wedges separating neighbourhoods) is visually less effective than it should be. The second distinguishing mark is the large amount of land devoted not merely to schools and playing fields, which is mandatory under the new Education Act, but to parks or commons. This would be highly laudable if so much space were not frittered away on streets that are much wider than is necessary, as well as on wide borders along the street and private front gardens. As a result, the two-story houses are often placed as far apart as eight-story apartments should be. In its revolt against congestion and sordor, a space-hungry generation has, I fear, developed eyes that are bigger than its stomach. Such openness reduces urbanity, but it also reduces social amenity and is economically wasteful. Unhappily, the standardized open layout developed in England in the twenties—straight rows of houses with front gardens big enough to preserve privacy, and back gardens big enough to grow vegetables—has been almost universally adhered to.'

Mr. Mumford links social needs closely to architectural form:

'This standard pattern of housing . . . was devised as an escape from the dingy, overcrowded, smoky city, and it is planned for privacy rather than sociability, for spacious solitude and domestic isolation rather than for easy communication and coöperation with one's neighbours. And while all sorts of clubs and associations flourish in the New Towns, there is little in the plan to facilitate their functioning on an informal basis. . . . Possibly it is unfair to criticize the few shopping centers and markets I have seen in these New Towns, for better ones may be in process of building. They usually provide arcaded walks beside the shops, but aside from that even the best seem to me to have been conceived without reference to the exigen-

cies of the motor age or of future traffic. Nowhere is there the separation of pedestrian precincts from parking lots and motor avenues one would expect in a mid-twentieth century New Town; nowhere is there sufficient use of the superblock or the cul-de-sac street to separate foot and wheeled traffic; rarely are there any of the internal parks and internal pedestrian ways that the pioneering Unwin provided in Hampstead Garden Suburb. As a result, the New Towns, though more hygienic and pleasanter than any other such quarters for people of comparable income, are brightly commonplace.'

And this is how he ends:

'Something important in the old towns and villages that these New Towns often surround has been lost in the new designs—something that needs to be understood and adapted. The fact is that a city is not primarily a way of providing a vegetable garden for every inhabitant; above everything else, it is a means of providing a maximum number of social contacts and satisfactions. When the open spaces gape too widely, and dispersal is too constant, the people lack a stage for their activities and the drama of their daily life lacks sharp focus. Like every other amenity, public open spaces and private gardens must be scaled to the whole for which they are planned. Because the new planners were mainly in revolt against congestion and squalor, rather than in love with urban order and coöperation, the New Towns do not yet adequately reveal what the modern city should be.'

EXHIBITIONS

PAINTING AND SCULPTURE

The art critic and the art historian never leave their imaginary museums: they spend all their days and nights in their shirt-sleeves, carrying their exhibits from one



2

place to another until their time is up and they disappear for ever behind Mont Sainte-Victoire or round the corner of a street in Delft. But

whereas the art historian is methodical, his comings and goings economical and seemly, and his exhibits always beautifully on the point of remaining where he has just put them, the art critic, exposed to a heady, ever-changing mixture of periods and styles, and the sly correspondences which arise from chance encounters and inexcusable intuitions, hurries towards the marble head of a Roman Empress with a pastel by Picasso under his arm, or for one dazzled moment transfers a whole exhibition by Francis Bacon to the Van Dyck room at Burlington House.

The half-dozen steps between Gallery I and Gallery III at Burlington House will always lead me to the Van Dycks whatever else may be shown there when the Flemish exhibition is over. In Gallery I there were the small, luminous, pietistic works of the fifteenth-century masters; in Gallery II some lovely panels of scenes from the life of St. Ursula retained the same sense of man's imperfect nature and the same hope of redemption; then in Gallery III there was a massing of Van Dyck's English portraits which evoked a nightmare of arrogance and splendour,

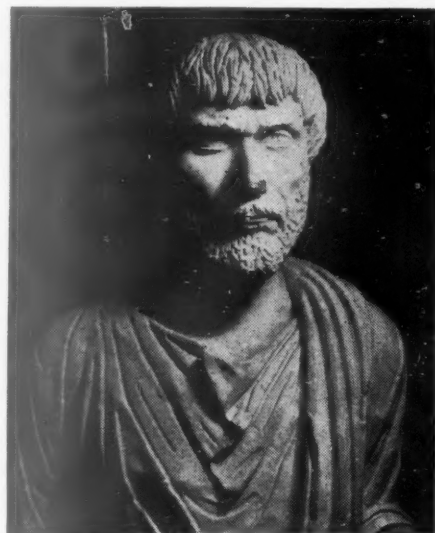
and one was suddenly badly shaken and diminished by the enveloping disdain of Charles I and his Court. If Titian had painted the double portrait of Lord John and Bernard Stuart, 1, there might have been some warmth and graciousness in evidence, but Van Dyck's virtuosity, far from transforming the insensate elegance of these young aristocrats, was magnified by it.

Beyond Gallery III there was a less effective massing of works by Rubens, and beyond them some splendid Brueghels and many pictures by the sixteenth- and seventeenth-century *genre* painters.

If it is not too incredible to see the Francis Bacon pictures at the Beaux Arts Gallery as the Van Dycks of our time (I have already been pulled up rather sharply for saying that he is the best painter of flesh since Renoir) it is partly because his work has largeness and painterly virtuosity (only a virtuoso could say that 'painting today is pure intuition and luck, and taking advantage of what happens when you splash the stuff down'), but chiefly because he, too, is elated by an arrogance in the subject that corresponds with the arrogance of his style. In Bacon's subjects the arrogance is implicit in the uninhibited conduct; the painting of a shouting man in evening dress is a typical example, and the detail of it reproduced here, 2, conveys in some measure the take-it-or-leave-it 'newsprint' technique.

The bareness of the rooms at the Beaux Arts, and their vertiginous levels (one room resembles a loft, the other, reached by a narrow winding staircase, a well-lighted pit) provide a romantically appropriate setting for the large, stern, monochromatic paintings of the young realists who frequently exhibit there. Derrick Greaves, one of the most gifted of them, held his first one-man show in the loft at the same time that Bacon was exhibiting in the well, and although the clumsiness of his figure painting was accentuated by the insouciance of the Bacons, his bleak, whitish green studies of Venice in the rain and his grim brown views of Sheffield, 3, proclaim a brilliant new exponent of the harshly picturesque.

The pleasure afforded by the Arts Council exhibition of Roman Portrait busts might have been limited to the parlour game of giving the likenesses of Emperors, Senators and Roman matrons the names of one's friends and relatives if the Professor of Classical Archeology at Cambridge had not provided a richly informative and illuminating preface. It guided one from the portraits based on death masks to the verism of the Republic and the sentimental and idealizing modifications under the Tyrants, and finally to the threshold of new ways of seeing; to the



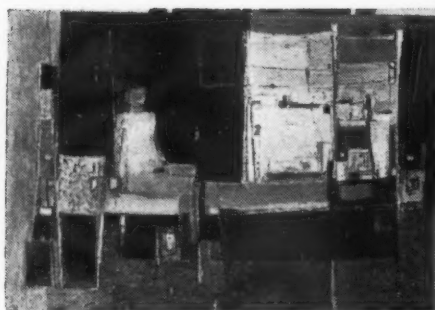
almost Byzantine head of an Empress and the almost Gothic sadness of the head of an unknown man from Ostia, 4.

The magnificent exhibition of replicas of Yugoslav Medieval Frescoes at the Tate Gallery filled the Sculpture Hall with a strange, pale brown light, like sunlight stained and darkened by age, and although the iconography was Christian, the narrative method familiar, and the conceptions of form Byzantine, the general effect was profoundly unfamiliar and impenetrable. It was only too evident in fact that the works which hung side by side in the Tate must be very differently situated in the Churches to which they belong if they succeed in involving worshipper and visitor in their sacred dramas.

The results of the Contemporary Art Society's invitation to something like a hundred English artists to contribute paintings of Figures in their Settings to an exhibition at the Tate would seem to have disappointed the Exhibition Committee rather more than the average visitor. It was certainly a very mixed show. Some of the artists sent either figures without settings or settings without figures, and although it was magnanimous of the Committee to accept them it was also wise, for it has to be admitted that the majority of the works which managed to conform

3





to the requirements had a distinctly Edwardian appearance. Nevertheless, some of the moderns made serious contributions within the terms of the subject, and two of the paintings purchased by the CAS, Paul Feiler's *Harbour Window*, 5, and Alan Reynolds' *The Poet Goes Poaching* disclose the ingenious if somewhat spectral ways in which the artists have inveigled figures into worlds which offer no solid foothold for them.

Robert Melville

TOWNSCAPE

PUT OUT MORE FLAGS

Flags, properly used, are among the most valuable assets at the townscape's disposal. They introduce colour and movement at a level which colour and movement cannot easily reach; their flagpoles can provide vertical elements just where such are needed. Only, they must be properly used. Massed flags are as much a part of imperial pomp and circumstance as massed bands. Let them be massed, however: herbaceous-border style, not potted and arranged, as the Canadians arranged them at the Glasgow Empire Exhibition of 1938, 1, as if there was some risk of their infecting each other. The people who live on the



other side of the St. Lawrence River have sounder ideas when it comes to flags, if one may judge from a photograph taken near the Empire State building in New York, 2; here the flags are thick enough in the air to set each other off instead of flapping in self-conscious solitariness. Not that the pole to pole treatment is always



right. Rather than a herbaceous border one may want an avenue, as in 3; this shows the front at Dieppe turned into a processional way, by simple enough means



and yet with great effect, on an anniversary of the famous Raid of 1942.

And now for flagpoles. Those used at Dieppe are nothing but . . . well, poles.

What more need flagpoles be? To you, of course, that question sounds rhetorical. But it wouldn't to everyone, it seems. Even the Canadians, or whoever was responsible for the flagpoles in front of their pavilion at Glasgow, 1, apparently thought that they would be 'improved' by vestigial crow's-nests a third of the way up. (Symbolical, no doubt, of the nautical prowess of our race.) But to see what the arter-up can do to the unoffending flagpole when he really gets down to it you must fly to far Bogota, in Colombia. Literally fly—and the incredible objects in 4 will greet your eyes at the airport of arrival. Your only consolation will be that you will have to fly a long, long time before being met again by forty-two naughty nudes. The moral: never make bedfellows of the naughty and the nautical. **Andrew Hammer**



MEXICAN MODERN

MEXICO'S MODERN ARCHITECTURE. By I. E. Myers, with the National Institute of Fine Arts of Mexico. Introduction by R. Neutra. New York, Architectural Book Publishing Co., 1952. \$12.

Good national surveys of modern architecture, and especially national surveys of good modern architecture, are rare and healthy treats. There are only few countries where enough has been produced to give an all-round picture without the edges smeared with work which can be called 'modern' only because it is new, or 'interesting' only because it is peculiar. Mr. I. E. Myers has had a chance in Mexico to give us a feast far beyond the school treat level and to open still wider our already wondering eyes (slightly glazed with jealousy) to the astonishing architectural achievements of yet another Latin American country. 'Yet another' because ten years ago Kidder Smith revealed the startling brilliance of Brazil's modern architecture which had flowered suddenly and unforeseen by Europeans; while we in England, for instance, were still wondrously pleased whenever a young architect won his right against the obscurantists to build one small modern country house. The cumulative effect of Mr. Myers's survey is hardly less remarkable than the earlier picture of Brazil. Perhaps its chief merit is that it shows work of all the main building types. In Mexico City, at least, modern architecture has gone far beyond that emergent phase when it is the dilettante pleasure only of rich private householders. Big business and industry (to a lesser extent, because there is less of them in Mexico City) with above all the promoters of vast housing projects and the university authorities make up a diverse and enlightened patronage. But Senor Enrique Yanez, chief of the Department of Architecture of the National Institute of Fine Art, in his foreword corrects the impression (given by the view of so many and varied good buildings) that Mexico City is all modern: judged on a city-wide scale, the buildings Mr. Myers illustrates are 'isolated phenomena' only. None the less there can be few cities in the world (Rio and Sao Paulo and perhaps Milan) where so much of such high quality has been done in so few years.

All the work in the book, with one or two exceptions only, is since 1947—one of the 'early works' is Villagran Garcia's Huipulco Sanatorium of 1944, universally regarded as a critically important building in the history of modern architecture in Mexico; another is Mario Pani's National Preparatory School of 1946. It is amusing to read Mr. Myers's comment that this is an 'early attempt . . . suffering from decorative formalism' and that Pani has made a 'tremendous development since.' The extraordinary thing is that this is true. In six years—his last work illustrated was finished this year—Pani has used his wonderful chances to develop a characteristic style charged with a gloriously

vigorous self-assurance which, as one sees the same characteristics in the work of other architects whose work is illustrated, can be detected as a social and not as a purely individual phenomenon. Things have moved fast since the dry but deeply rooted ascetic severities of O'Gorman in the thirties, who made two lasting contributions by giving the modern movement a severe functionalist childhood and by directing the interests of architects to school building. These have helped the Mexicans to avoid æsthetic or social flabbiness and flashiness. It is a pity that Mr. Myers could not have included a few illustrations of O'Gorman's work in his introduction.

The first group—of 'one-family houses'—includes much good work, though perhaps less of interest than educational buildings, public housing, or office blocks. The characteristic private house has a long, low façade to a patio or garden, generally with a portico on slim metal columns providing open air extension to a large salon opened to it through wide sliding windows. The variations are delicately and amusingly played: in one a swimming pool runs into the portico; in all the creepers and greenery are woven ingeniously into the static architecture; considerable play is made of deep facias to the roofs to emphasize horizontality—a feature derived perhaps from the solidity of Mexican traditional architecture.

The 'housing' is exuberant in its social and æsthetic scale and clearly needs more detailed description than Mr. Myers can give it. Two outstanding schemes are the President Miguel Aleman dwellings and Balbuena Gardens. The first provides 1,080 apartments in six huge blocks forming a complete neighbourhood with shops, schools and sports facilities; the buildings occupy 20 per cent. of the whole site. Unfortunately the rents and any indication of the class of tenants is lacking, but it would seem to be a middle-class scheme. Balbuena Gardens is a scheme for 50,000 inhabitants in single row and apartment houses, the buildings and roads occupying less than 25 per cent. of the site. The design of the apartments, of which one is illustrated, is most ingeniously contrived to provide great variety of house size and outlook and a façade with a lively and original fenestration which, however, seems to dictate the internal arrangement unduly.

The University City is certainly one of the most ambitious and architecturally one of the most exciting projects being carried out anywhere in the world. A dozen or more of the brightest stars of the Mexican architectural constellation are collaborating under Pani, who is in charge of site planning with Lazo as executive director. The designers of each building seem to have considerable freedom of expression. There is no doubt that the problems posed by the scientific departments have evoked the liveliest response: the main science faculty and the nuclear physics institute and the cosmic ray laboratory are all excellent, delicately evocative and slightly fantastic which is as it should be. The Humanities building, which might have drawn some inspiration from the vitality of traditional and contemporary Mexican art

and letters, is ham-fisted and best described, as Mr. Myers describes it curtly, as one of the longest buildings in the world.

Mr. Myers's photographs are all good, some excellent; his introductory text is far beyond the average in clarity and informativeness, and is well supported by Sr. Yanez's and Mr. Neutra's contributions. Only the notes under the pictures are tantalizingly inadequate, and the plans, mostly made, it is clear, for other publications, or without idea of reproduction on a printed page, are nearly useless.

E. J. Carter

THE COMPLETE MACKINTOSH

CHARLES RENNIE MACKINTOSH. By Thomas Howarth. London, Roulledge and Kegan Paul. £3 3s.

The past decade has been notable for the appearance of a galaxy of books on the architecture of the last years of the nineteenth century and the first years of the twentieth century, most of them hardly worth the paper upon which they are printed.

The fact is that Professor Pevsner's pioneer work took the story as far as it could be taken in general terms; nearly all subsequent authors have used his book as a crib, only adding personal opinions of doubtful validity or special pleading based on a variety of preconceptions. There can be no further progress in the study of this period until a thorough and detailed exploration of original sources has brought fresh facts to light.

Dr. Thomas Howarth's work on Mackintosh is of very great importance not only because Mackintosh himself was an interesting character and a first-rate designer, but also because the publication of his book marks the beginning of the second stage of the study of architectural development at the turn of the century; moreover it sets an exceptionally high standard of scholarship and thoroughness.

Dr. Howarth makes it clear that Mackintosh was first and foremost an architect who, under different conditions, might have left us many really fine buildings, a point to be emphasised at a time when he is too often thought of merely as an *art nouveau* decorator. Of course, Mackintosh was influenced by his contemporaries and he influenced them in his turn; but, while observing and commenting upon the interplay of ideas, Dr. Howarth does not make the mistake of over-emphasizing Mackintosh's work in the minor arts and his connection with Continental *art nouveau*.

Mackintosh had his roots in his native Scotland, and his work is very much closer to the Scottish vernacular than is generally realized by English or Continental critics. In an introductory chapter on the historical background of Scottish architecture, Dr. Howarth sets Mackintosh's contribution in true perspective, and his point could have been reinforced by many examples from the lesser towns and villages of the North of Scotland. The lovely little Church at Reay in Caithness springs to mind, and there are innumerable groups of farm-buildings that are obviously of the same family. Homely details that must have seemed commonplace to Mackintosh

himself probably came as a surprise to Continental admirers unfamiliar with the source of his inspiration.

In his own country his work must have appeared to many as a return to barbarism. The revival of Scottish Nationalism that we know to-day had hardly begun. In the architectural field classical influence lingered on; Greece, Italy and France were still considered the correct schools for architectural good manners. There was something uncouth about an architect who based his work on farm-house and bothy, who spiced his decorative schemes with outlandish ideas from Japan, and who obviously admired, and occasionally imitated, the work of Englishmen like Beardsley or Voysey. To crown all Mackintosh dressed and acted like a Bohemian. It is not altogether surprising, therefore, that influential Glaswegians preferred to trust their building to more orthodox hands. The great tragedy of Mackintosh's life lies in the fact that his capacity and early promise were never fully developed. His own realization of that fact and his feeling of frustration led to the miserable anti-climax of his later years.

In addition to the well-known works of Mackintosh's middle period Dr. Howarth illustrates interesting examples of early or late designs not previously published. Many readers will be delighted and surprised by the reproductions of flower studies and landscapes made by the architect in his later years. There is also a very valuable chronological table giving the events of Mackintosh's life against the background of contemporary events in art and architecture, which in itself should clear up a number of common misconceptions. John Brandon Jones

AIRBORNE ARCHAEOLOGY

MONASTIC SITES FROM THE AIR. By David Knowles and J. K. S. St. Joseph. With 138 photographs. Cambridge University Press, 1952. 55s.

As the first of a series showing the application of air photography to various studies such as archaeology, social history and geography, the make-up and editing of this book has a special importance; at the same time, as the first of its kind, full allowance should be made for its experimental character. It consists of an introduction in which the origin and normal forms of the monastic plan are discussed, and notes on each of the sites illustrated. There is also a catalogue of the photographs of monastic sites now in the collection of the University of Cambridge. These are arranged according to the monastic Orders whose houses are represented, and that sequence is followed throughout the book.

The text of the introduction and notes are, as regards the introduction entirely, and for the notes mainly, the work of Professor Knowles, and no greater authority could have been found to undertake the task. His introduction is another example of the truth that it requires a great master to write briefly and well on a large subject. The choice of the photographs is, however, not entirely happy; the best are extremely good, but had

some others been omitted, it might have been possible to afford properly drawn and dated plans, which would enormously have enhanced the value both of the photographs and the notes. The book would have been far more valuable as a work of reference if quite short notes of a line or two could have been supplied to the catalogue of photographs in the University Collection, indicating whether anything remained above ground at all on each site or whether the surface indications on the ground were extensive or not.

The book also raises the more profound question as to the real value of air photographs for this kind of study. It is certain that a good air photograph of a big monastic complex can give a far more vivid idea of the relationships of the component parts than any accumulation of photographs at ground level, even when helped out by a well-drawn plan.

Geoffrey Webb

DORSET MONUMENTS

WEST DORSET. Survey by the Royal Commission on Historical Monuments. H.M.S.O. £3 3s. 0d.

Even West Dorset has nowadays its quota of depressing objects, with pylons and wireless masts inevitably sited to destroy the scale of a small intimate landscape, its sea-side rash of bungalows and caravans, and the inevitable concrete verges to new council house schemes in remote and rustic places. One does not like to imagine what may happen in the near future with building much less restricted.

But this book can help to put all this for the moment out of mind. One is amazed how much that is beautiful and decent yet remains. Not only prehistoric works and churches and large country houses, but ordinary pleasant seventeenth, eighteenth and nineteenth century small houses and cottages which have a solid, friendly, traditional, untidy look such as all homes, whether old or new, ought to have. Extending the terms of the survey to cover buildings after 1714 must have enormously increased the labour of the undertaking. It must also have greatly increased local interest and caused perhaps local heart-burning. Where cottages 'much altered' are included the selection must appear arbitrary. In places nothing seems to have escaped the sharp eyes of the team and yet, for instance, the part sixteenth and eighteenth century rectory at Puncknowle with its interesting dove-cote and charming tiny mid-nineteenth century gothic garden house gets no mention.

Comparison with the first volume of the series published in 1912 is instructive. The former is dreary typographically with remarkably dim photographs and is burdened with a hand-drawn title page in the manner of the time. This volume has many more and much clearer half-tone plates and reflects the much greater interest in post-reformation church sculpture. The frontispiece, the monument to Robert Goodden of 1828, is an impressive piece of carving (artist unknown) from the small church of Over Compton, near Sherborne. There are also excellent photographs of details and some exciting air photography

of camps and lynchets. The plans are clearly drawn, but the lettering is still that curious hybrid which might be described perhaps as 'architects'.

In spite of the impartial and matter of fact descriptions the surveyors communicate something of the excitement of the discovery of interesting remains and fine craftsmanship hidden away in a lovely countryside.

Reynolds Stone

AESTHETICS IN THE ROUND

SCULPTURE—THEME AND VARIATION. By E. H. Ramsden. Lund Humphries. 36s.

This book is marred by poor photography, by repetitions and by some judgments which are strangely controversial in view of the author's expressed desire for objectivity. Thus, for example, state patronage is absolutely condemned, although admitted to be almost the only future source of monumental commissions; Mr. Reg Butler is attacked for expressing the anxiety of an atomic age; Degas and Marini are compared unfavourably with Georg Kolbe; and mythology is declared to possess no more reality for the contemporary artist than for the spectator.

The most startling remarks, however, are devoted to architectural and decorative sculpture. Here Miss Ramsden states that 'in modern building, properly so-called, sculpture has . . . no efficient part to play,' and that 'neither the tempo nor the manner of life can any longer be regarded as favourable to the contemplation of architectural sculpture in situ.'

She bases these opinions on the ineffectiveness of sculpture in association with various rather mediocre buildings of the inter-war years, and presumably on Henry Moore's statement (quoted later in the book) that he would rather have a piece of his sculpture 'put in . . . almost any landscape, than in or on the most beautiful building (he) know(s).'

While portions of the book are of considerable interest, it is a pity that a work explicitly designed for the interested spectator by an author with twenty years' experience of her subject, should be throughout so unorganized and so deficient in clarity of theme.

John Hope

Books Received

- THE RISE OF THE SKYSCRAPER. By Carl W. Condit. Unwins of Chicago Press. Cambridge University Press. 37s. 6d.
AMERICAN GEORGIAN ARCHITECTURE. By H. D. Eberlein and L. V. D. Hubbard. Pleiades Books. 42s.
TOWN AND COUNTRY PLANNING. By A. J. Brown and H. M. Sherrard. Melbourne University Press. 63s.
WATERWORKS BYELAWS AND FITTINGS. By Delwyn G. Davies. The Colliery Guardian Co. London. 30s.
GARDENAGE OR THE PLANTS OF NINHURAGA. By Geoffrey Grigson. Routledge and Kegan Paul. 21s.
UNDERGROUND ADVENTURE. By A. Gemmell and J. O. Myers. The Dalesman. 15s.
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SKILL

A MONTHLY REVIEW OF BUILDING TECHNIQUES AND INDUSTRIAL DESIGN

In the past the REVIEW distinguished between the art and the technique of building by calling one Design, the other Craftsmanship.

Our portfolio of craftsmanship lapsed during the war and hasn't been—can't be—revived under the same title because the word 'craftsmanship' has become hopelessly dated. Why? From its association with handicrafts? From its unsuitability as a definition of precision building and manufacture? Possibly.

And yet the craft of building in the wider sense remains vital to any decent architecture and was never in greater need of encouragement by word and deed.

The editors feel the time has come to discuss the issues involved with a good deal of frankness if only to award all possible publicity to those who are keeping the flag of quality flying. They believe that the architect, and the manufacturer, will welcome a new, a bolder and a more critical approach to the whole subject. Hence this monthly feature, SKILL.

Body Carpets*

DESIGN REVIEW

Neville Ward and Frank Austin

There are about eighty carpet manufacturers producing machine made body carpet in Great Britain today. The Industry produces an astonishingly large range of patterns, in some cases running into some thousands available from a single firm at any time. Most of these designs will be made in special colours if required provided a minimum quantity of say fifty yards is ordered; not a large quantity, this, considering the thousands of yards used in carpeting a single large building. Many firms will make carpets to special designs or produce special designs themselves without extra charge where large contracts are concerned.

Although there are surprising gaps in the range of designs obtainable, by and large the industry has something for every taste. The first problem, then, both for the architect and the industry is the difficulty of putting carpets on show. The cost of holding stocks makes it impossible for any one retailer to represent more than a tiny fraction of the industry's capacity, though a retailer specializing in one field may have a good selection of the kind of carpet he favours. It seems reasonable to hope that the recently formed British Carpets Promotion Council will, in the

* Body carpet is the manufacturers' term for carpet sold by the yard.

fullness of time, find it rewarding to evolve some form of carpet intelligence, amplifying consumer's knowledge of available carpets, as an indirect form of sales promotion.

For the moment anyone wishing to see a comprehensive range of carpets is well advised to visit the showrooms of one or more manufacturers. On the whole, carpet manufacturers are very willing to explain what they can do, and they are surprisingly flexible in the services they will provide. It is hardly necessary, however, to point out that an actual purchase must be made through a retailer or carpet planner.

The carpet industry in Britain enjoys a long standing but disconcerting tradition of weaving in widths which are multiples of a 'quarter.' The unit of measurement is nine inches and widths are referred to as three-quarters (27 inches), four-quarters (one yard), nine-quarters (6 feet 9 inches) and so on.

Body carpets, which invariably carry a repeat across the width, are generally marketed $\frac{3}{4}$ width for the domestic market, though for contract work $\frac{4}{4}$, $\frac{5}{4}$ and $\frac{6}{4}$ width is quite usual. Stair carpets, distinct from body carpets only in that they frequently incorporate a border design, are woven $\frac{2}{4}$, $\frac{5}{8}$ (an intruder on the module, $22\frac{1}{2}$ inches wide), $\frac{3}{4}$, $\frac{4}{4}$, $\frac{5}{4}$ and $\frac{6}{4}$, the larger widths frequently being used for corridor runners. Broadloom carpets are woven generally at widths

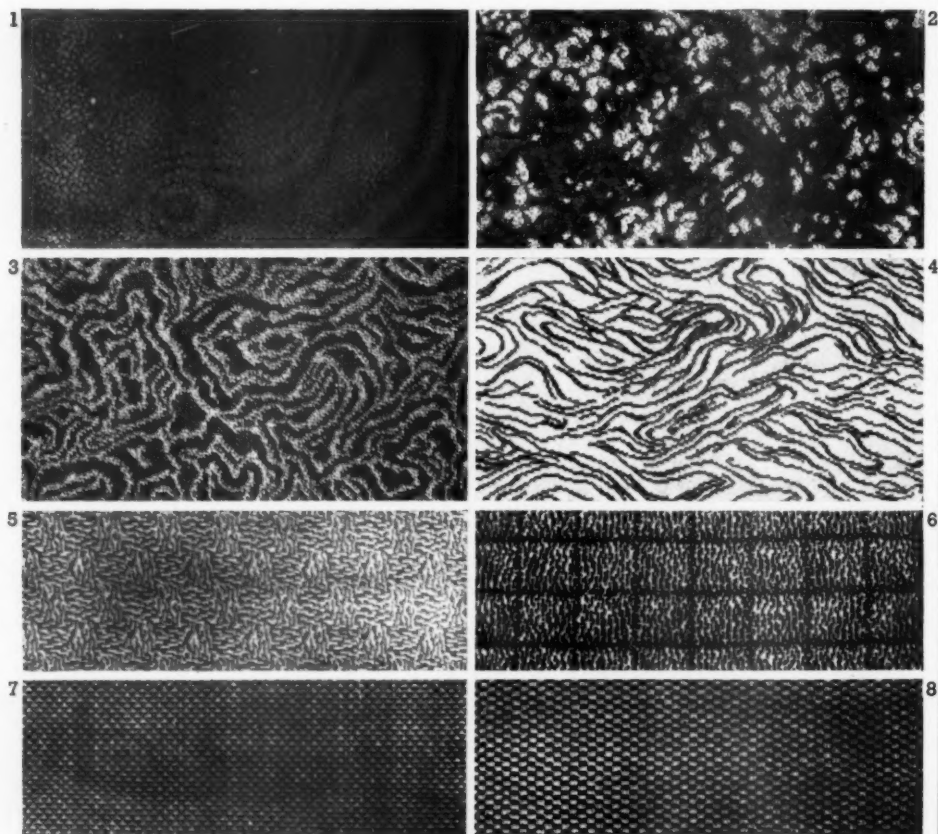
of $\frac{10}{4}$, $\frac{12}{4}$, $\frac{14}{4}$ and $\frac{16}{4}$. These are the widths to which seamless carpets are woven for made up squares.

Two fundamentally different methods of weaving are employed generally by the industry though these are by no means mutually exclusive, and many variations exist within and beyond the limits of the techniques. Axminsters, woven on Axminster looms, permit the use of a great many colours in a single carpet and consist of separate tufts of wool pile on a jute and cotton back (linen and hemp are occasionally incorporated). Wilton is woven on a Jacquard loom. This generally limits the design to five colours in any one carpet, but by virtue of the pile being in continuous threads through the length of the carpet produces a particularly strong and durable carpet. The

reverse side of a carpet reveals its method of weaving; an Axminster has a double weft thread, a Wilton a single weft thread.

Passing from weaving technique to patterning, it is noticeable that small geometric patterns, a few of them distinguished and some of them pleasant, are easy to find and so are stipples and swirls. On the other hand larger patterns of a comparable quality are difficult to find and floral patterns which are in any way distinguished somehow escape notice. Designs which have survived unaltered from the past seem to be rare though there are a great number of evocative designs of varying quality. Briefly, the industry tends to play safe and since all the looms seem to be busy and all the order books full they can hardly be blamed. There is, however, no doubt that the ranges are heavily overloaded with small patterns and if competition became more keen a bolder policy might result. Such a circumstance might also lead to an increase in the variety of carpets with interest in their texture. At the moment such carpets are depressingly few but just sufficient in number to suggest interesting possibilities for the future.

The patterns illustrated are limited somewhat arbitrarily to those offered by manufacturers when use was made of the word 'contemporary.' All the photographs show the weft horizontally on the page and show the full 27 inch width of the carpet. The repeat sizes quoted are the approximate repeat of the pattern in the weave, and no reference is made to self or drop joining. All the examples are wool pile on jute, cotton and/or hemp backing. It is impossible to detail available colours since they vary from one to three hundred for the patterns shown. Some of the pattern numbers include a colour reference, and it is important in making enquiries to ask for colour ranges available in the type of carpet represented by the number.



1 Woodward, Grosvenor & Co.'s pattern 9246/12 Wilton,

2 T. Bond' Worth & Sons' Sabrina Axminster 92/3216, both with a repeat of 2 feet, are examples of simple textural effects, achieved by the use of colour, which serve to conceal

soiling and shading (the effect produced by ruffling the pile).

The same virtues may be claimed for the following six designs—though in these examples a more definite pattern is achieved:

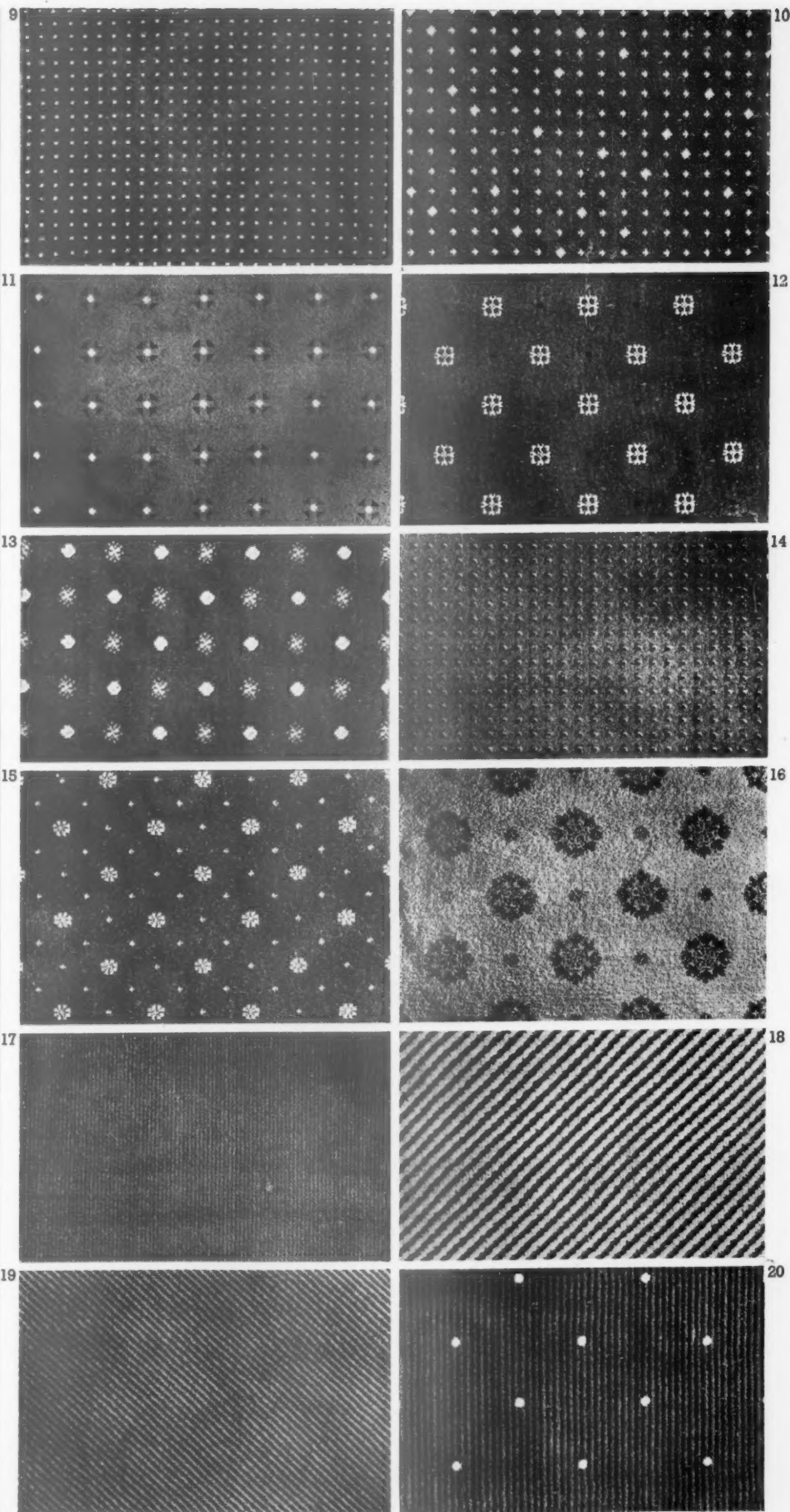
- 3 Hugh Mackay's 3309/6271 figured Wilton with a repeat of 27 inches;
- 4 A particularly distinguished example of this sort of pattern, Blackwood Morton & Sons' Axbury 1452, repeating at 18 inches;
- 5 James Templeton's 13/3091 Wilton, repeating at $4\frac{1}{2}$ inches;
- 6 Old Bleach Carpets Co.'s OB/21/43 $6\frac{1}{2}$ inch repeat Wilton;
- 7 Woodward, Grosvenor & Co.'s design 9346/8, with its subtly broken triangles, is a worsted pile Wilton with a $\frac{1}{2}$ inch repeat;
- 8 The Axminster Carpets' super Devonian check, No. 61/34/285: an Axminster weave repeating at $\frac{5}{8}$ inch.

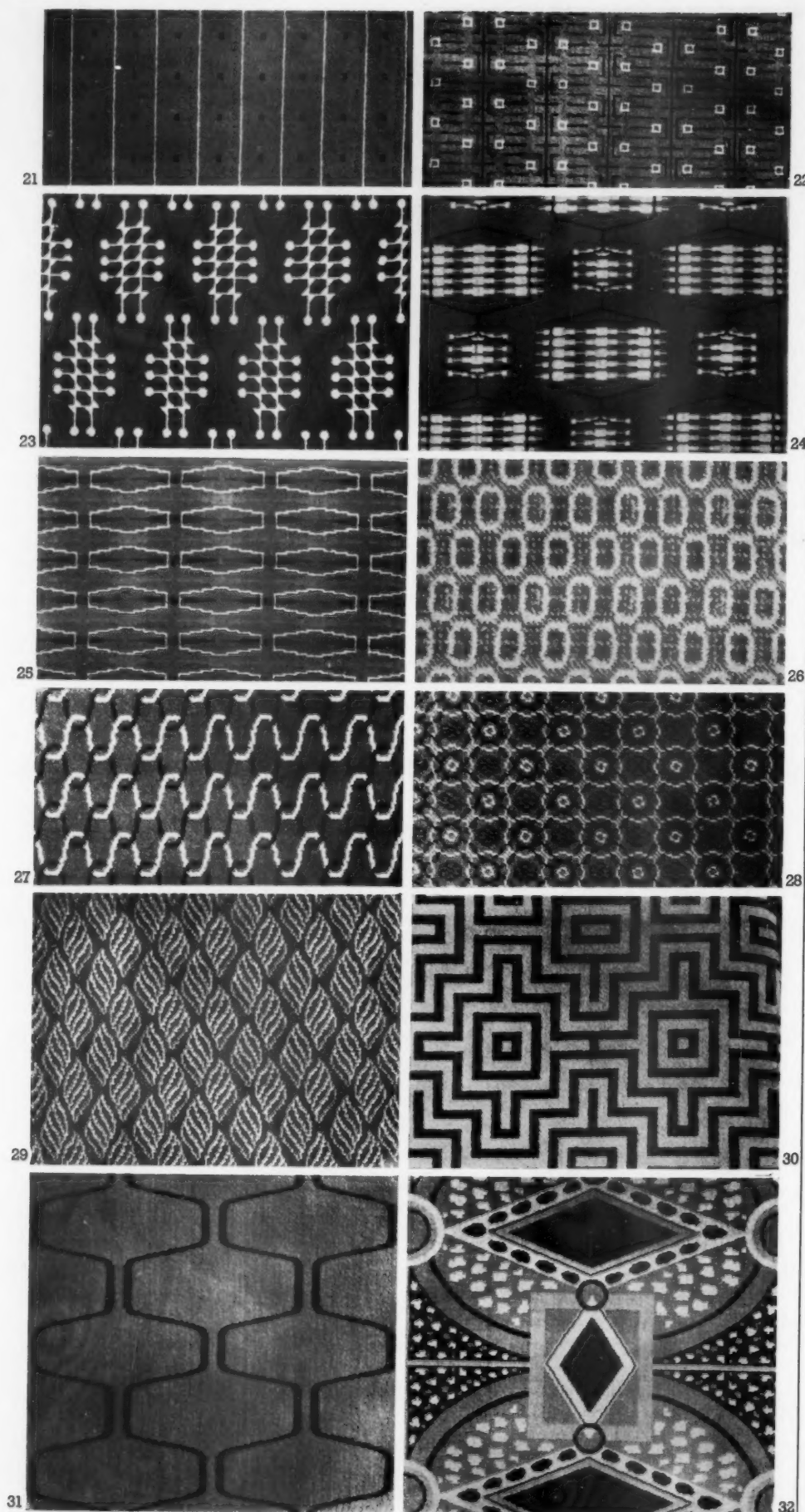
Spot patterns are produced by most manufacturers in some form.

- 9 Ian C. Steele & Co.'s CT4/160 Wilton, with a 1 inch repeat, is a simple dot pattern on a square grid.
- 10 The Wilton Royal carpet factory's 57/663 13 inch repeat Wilton is an attempt to enliven a pattern like the last with an enlarged dot and the use of four colours.
- 11 The dot is elevated into a motif in the Old Bleach Carpets OB/22/53 Wilton, repeating at $3\frac{1}{4}$ inches.
- 12 T. F. Firth & Sons' 24/Q/023 Wilton, with a $7\frac{1}{2}$ inch repeat, uses both motif and dot.
- 13 Brintons' Regina Axminster design 740 has a repeat of 6 inches.
- 14 Carpet Trades' 1 inch repeat pattern Ottawa 3/6010 is an Axminster weave.
- 15 Hugh Mackay & Co.'s 3233/6218, $6\frac{1}{2}$ inch repeat Wilton is another spot and motif design.
- 16 the same firm's 3308/6137 Wilton with a 9 inch repeat is a particularly fine handling of this type of design; a strong but beautifully balanced composition, suited to a soft floor covering.

Simple stripe patterns are less common than one would expect.

- 17 Tomkinsons' No. 8/9166 Axminster is a plain stripe on $\frac{1}{4}$ inch centres.
- 18 The diagonal stripes on John Crossley's 1230 Wilton $\frac{7}{8}$ inch apart form a bold pattern in the colourings photographed, and would be equally pleasant, though different in character, if the contrast were reduced.
- A more reticent diagonal pattern is
- 19 Axminster Carpets' 72/150/284 Axminster with $\frac{1}{4}$ inch stripes.
- 20 The very charming equal stripes of Messrs.





Templeton's 9/3908 9 inch repeat is somewhat marred by the apparent overprinting with a natural coloured dot.

- 21 The Old Bleach Carpet Co.'s OB/22/52 3 inch repeat Wilton is a simpler and somewhat happier use of the device.

There are a growing number of lively small geometric patterns available including

- 22 Woodward, Grosvenor & Co.'s New Era, No. 9476/22 with a 3 inch repeat, and S. J. Stockwell & Co. (Carpets) three designs on Royalist Wilton;

- 23 Regatta—repeat 7 inch;

- 24 Links—repeat 12 inch;

- 25 Convoy—repeat 3 inch.

These last three designs are all by Ronald Grierson, and are produced by a firm tending to specialize in this type of carpet design, calculated to appeal to a quite specialized market.

- 26 John Crossley & Sons' excellent 4372 Axminster carpet, with a $4\frac{1}{2}$ inch repeat designed by John Palmer,

- 27 the Empire Carpet Co.'s pattern 413 Axminster with a $4\frac{1}{2}$ inch repeat, are two examples of softened pattern with a geometric basis.

Two further designs on a more loosely treated geometric basis are

- 28 Solent Carpet Co.'s 69/3279 3 inch repeat Axminster,

- 29 Carpet Trades' Tampa 3/385 Wilton with a $4\frac{1}{2}$ inch repeat.

Five of the very few patterns in which bold geometric designs are used in a way suited to large public spaces are

- 30 T. F. Firth's 18 inch repeat Wilton;

- 31 James Templeton & Co.'s Caledon Saxony Wilton 7/4058, with a 9 inch repeat;

- 32 Carpet Trades' Tobruk Wilton 1035, designed by Graham Sutherland with a 20 inch repeat. It is perhaps significant that 31 is a scaled-down version of the very fine design used in the Royal Festival Hall 0820. In addition the manufacturers have now produced a very small version with a 4 inch repeat incorporating a floral device (3/7175) which is enjoying a considerable success in their Axminster range. Floral patterns or derivatives are produced in enormous variety, and though these generally lack distinction there is no difficulty as to scale;

- 33 A. F. Stoddard & Co.'s Glenmore 37 inch repeat Axminster No. 1/2304;

- 34 Blackwood Morton & Sons' Axbury Wilton 696/1/1423 repeating at 36 inches.

Two carpets which successfully avoid the three-dimensional quality so often an unfortunate feature of carpets of this sort are

- 35 Solent Carpet Co.'s 35/3280 4 inch repeat Axminster;

[continued on page 141]

- 36 Blackwood Morton & Sons' 'Heractium' Wilton with a 30 inch repeat.

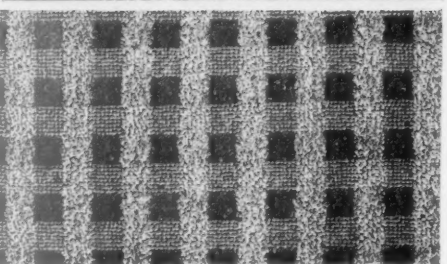
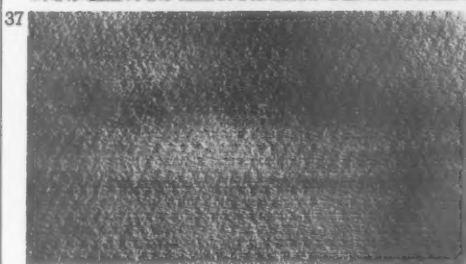
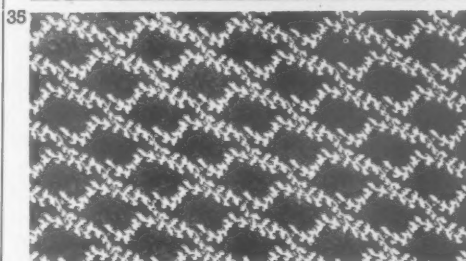
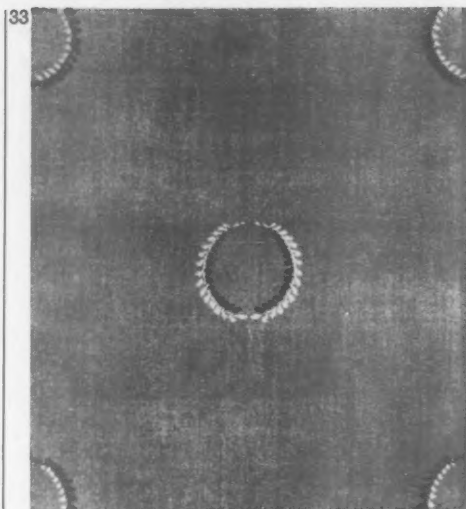
Textured carpets in which the weave itself is used to form the pattern are comparatively rare. A number of sculptured pile carpets are available in a pseudo-Chinese taste, but wider application of techniques in weaving would do much to enliven the industry.

- 37 Hugh Mackay's 1237/6176 Honeycomb Wilton is an example of texture intelligently used to prevent shading. The principle of weaving, patented in most countries, is interesting in that the full complement of tufts is used as in a solid plain carpet of the same pitch.

- 38 John Crossley & Sons' waffle design Wilton No. 1101 with a 1½ inch repeat is a combination of cut and uncut pile on a striped ground in two shades of plain and frisé yarn.

suppliers The British Carpets Promotion Council is a recently formed organization sponsored jointly by the International Wool Secretariat and the Federation of British Carpet Manufacturers. Their address is: c/o International Wool Secretariat, Dorland House, 18-20 Regent Street, London, W.1.

The following gives the addresses of the manufacturers whose carpets are illustrated. Asterisk indicates members of the Promotion Council; italics, London Offices. *Woodward, Grosvenor & Co., 49 Conduit Street, W.1. *T. Bond Worth & Sons, 34-38 Little Britain, E.C.1. *Hugh Mackay & Co., 2-4 Little Britain, E.C.1. Blackwood Morton & Sons, Burnside Works, Kilmarnock. *James Templeton & Co., 34-38 Little Britain, E.C.1. *Old Bleach Carpets, Maidstone House, 26 Berners Street, W.1. *Axminster Carpets, Axminster. *Ian C. Steele & Co., The Carpet Mill, Bloxham, Banbury, Oxon. *The Wilton Royal Carpet Factory, 118-119 Newgate Street, E.C.1. *T. F. Firth & Sons, Africa House, Kingsway, W.C.2. *Brintons, 6 Giltspur Street, E.C.1. *Carpet Trades, 197 Aldersgate Street, E.C.1. *Tomkinsons, 6 Holborn Viaduct, E.C.1. *John Crossley & Sons, 34 Little Britain, E.C.1. S. J. Stockwell & Co. (Carpets), 16 Grafton Street, W.1. *The Empire Carpet Co., Foley Park Works, Kidderminster. *The Solent Carpet Co., 118 Newgate Street, E.C.2. *A. F. Stoddard & Co., 197 Aldersgate Street, E.C.1.



WINDOWS

Factory Made Units

Philip Scholberg

'The technical field in the matter of window design still remains wide open; but the architect has first to think of his problem, and the objective aimed at in his scheme of fenestration. . . . Frequently a window has been simply a glazed opening in a wall, and not always an adequate one at that.'

'Architects are allergic to standardization, which they regard as cramping to their style. But even when British Standards fail to appeal, architects could do much to reduce building costs by adopting standards of their own, and rigorously maintaining them.'

These two statements, the first by a distinguished architect, the other by a manufacturer of metal windows, are not necessarily contradictory, but rather illustrative of two opposite methods of

approach to the same problem. Window manufacturers would be the last to claim that any sort of finality has been reached either in design or in methods of production, but with current large scale window manufacturing methods a considerable degree of standardization, both of dimensions and in the sections used, is quite inevitable. However enjoyable full size joinery details may be for the designer they add very greatly to the cost, while purpose rolled or extruded metal sections would be virtually prohibitive, at any rate by present day standards. The object of this article, therefore, is to draw attention to the number of different designs now in production, to various British Standards, both in timber and in metal, to the further standard designs produced by groups of manufacturers, or by individual firms, and

to suggest that, while some few architects may still suffer from some degree of allergy to all standard designs, there are enough variations available for there to be no real reason why any window should remain no more than 'simply a glazed opening in a wall.'

standardization of domestic windows

The standardization of window sizes was first carried out by the metal window industry itself as long ago as 1922, when the Ministry of Health suggested the adoption of standard sizes for use in 'artisan's dwellings.' The dimensions finally adopted were based on the small window panes which were then the usual practice, and without any reference to standard brick sizes. The present British Standard (No. 990 of 1945) is under revision, but is, in essentials, similar to the older unofficial standard, being based on the subdivision of a unit window 4 feet high by 1 foot 8 inches wide into eight panes, the result-

ant pane size being multiplied up to give a range of sizes from 11½ inches high by 11 inches wide, to a maximum of 4 feet 11½ inches high with a width of 6 feet 6½ inches. Sixty or more standard types are produced, with or without glazing bars, both as fixed lights, casements or top hung ventilators; a range of doors is also produced to this specification, being fabricated from a special section which allows them to be coupled to standard windows with standard mullions and transoms, fanlights and sidelights consisting of standard window sections. It should also be pointed out that the various standard windows may be coupled together to make longer runs if required, or to form splayed or circular bay windows by the use of tubular mullions.

So far as timber windows are concerned little in the way of standardization was carried out by the manufacturers until 1945, when the standard specification of the English Joinery Manufacturers Association was adopted as B.S. 644. This was based on a rather light series of sections, and was revised in 1951, the various sections being modified to give greater strength, while at the same time involving only a small increase in the timber content. Windows are produced to a number of different sizes, based on dimensions which work in with brick sizes, and range from a height of 2 feet 6½ inches with a width of 1 foot 5½ inches to a maximum of 5 feet 0½ inch by 7 feet 10½ inches. Fixed lights, casements and ventilators are produced, with or without glazing bars. Angle mullions allow bay windows to be easily made, and a series of weight and spring balanced sash windows is also produced.

The standard has a strict specification for the way in which the windows are to be made, and only members of the Association licensed to produce these windows are entitled to make use of the EJMA mark.

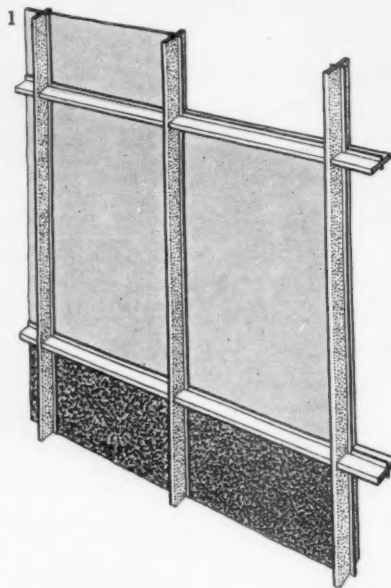
industrial standards

To provide a range of windows which can give large lighting areas in industrial buildings there is a British Standard (No. 1787, 1951) which has also been a standard within the metal window industry for a number of years. It is based on a pane size of 18 inches by 12 inches, and builds up to give overall sizes varying from 1 foot 8½ inches high by 2 feet 2½ inches wide to maxima of 9 feet 4 inches by 5 feet 3½ inches. The units can be coupled both vertically and horizontally with transoms

and mullions to give large areas, while centre, top and bottom hung vents are available, with fly screens if necessary for food or other factories.

universal sections

These sections are not the subject of a British Standard, but are produced by most metal window manufacturers, and may be used to build up any required window

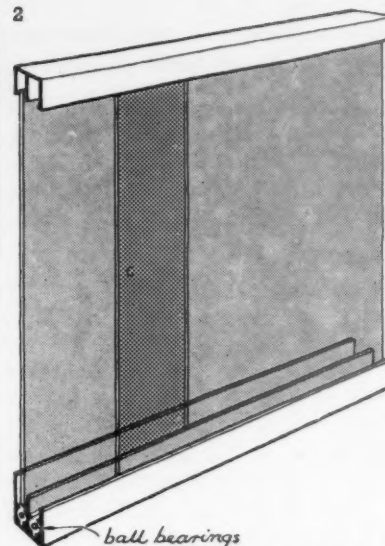


The 'Wallspan' system of glazing and wall facing uses extruded aluminium alloy tubular mullions and transoms, or tee and angle sections when spans are small. The grid is supported by the floor slabs, and glazing can be applied as required, or the panels can be filled with any of the usual sheet materials. (Williams & Williams.)

arrangement. The sections are rolled from mild steel or extruded in bronze or aluminium alloys, the latter process allowing a greater variety of sections to be produced. The steel sections are made in three weights, and the extreme sizes run up to 8 feet high by 9 feet 6 inches wide, depending on the type of window required. Top, bottom and centre hung ventilators are produced, and vertically centre hung windows, as well as the balanced types. Sliding and folding types may also be made to an extreme size of 20 feet by 8 feet, but not more than four leaves should fold in one direction. Horizontally and vertically sliding windows are also possible.

The main advantage of these universal sections is that T section and cruciform mullions make it simple to couple together any number of window units. There is no limit to the height or length of the windows which may be formed in this way, as the mullions will take the wind loads and at the same time offer less obstruction to

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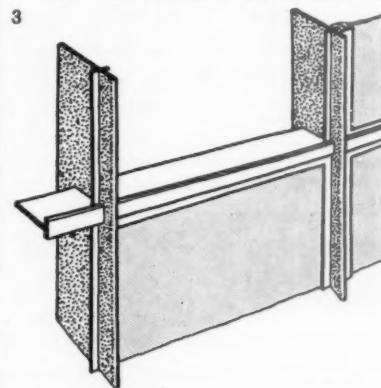


Sliding window developed in Australia and now being manufactured in this country. The glass is unframed and runs on ball bearings in a metal channel: the windows can be locked with fittings where the glass butts against the wall. (P. G. Allday & Co.)

daylight than either stone or wood. The heavier mullions extend the full height of the window, and are built in at head and cill; the transoms are not threaded through them.

These sections offer a great deal of scope

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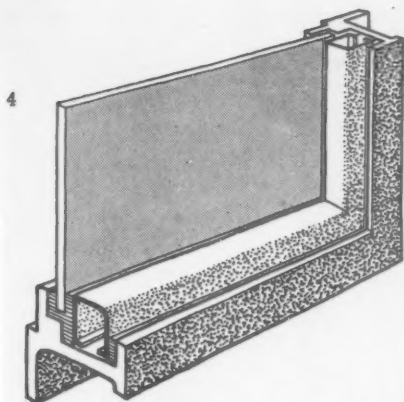
Universal sections can be used to build up any size of window with various mullion and transom sections. (Williams & Williams.)

to the designer, as a window may be built up from a number of different units to any required size, without any limitations whatever other than the use of the standard sections.

factory lighting

In addition to the British Standard industrial window sections mentioned above, there are also the innumerable methods of lighting which may conveniently be grouped under the heading of 'patent glazing,' as well as sundry methods of providing light areas in ordinary roofs covered with corrugated sheeting.

[continued on page 143]



The 'Eseglaze' system, which uses ready formed glazing beads. Vertical beads hold the width beads in position, and are themselves held by corner clips. (Frederick Braby & Co.)

With all the corrugated materials, whether steel, asbestos cement or aluminium, the manufacturers produce special sheets to take quite large areas of glass, and these may be placed wherever they are needed to provide the necessary amount of lighting. Post-war developments in plastics have also led to the manufacture of transparent sheets, made to all the usual corrugations, and within the last twelve months or so there have been produced the glass reinforced polyester resin translucent sheets which may also be placed wherever light is needed.

Patent glazing bars are produced in a multitude of types from the wooden bar with a strip lead capping, to lead clothed or galvanized steel and the more elaborate aluminium sections. Many of these systems can be adapted to include side wall glazing, with or without some form of corrugated or flat sheeting as an infilling.

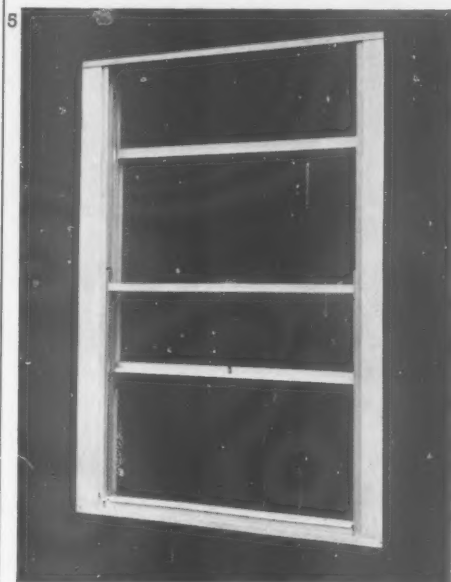
curtain walling

Following on side wall glazing, some mention should be made of a new system of curtain walling which is based on a lightweight grid of box section aluminium transoms and mullions, the grid being bolted to each floor slab and needing no foundation of its own. Glazing may be fixed wherever necessary, and there is a number of sheet materials which may be used for solid infillings, plastics, strawboard, asbestos materials and sandwich panels of all kinds to give the required degree of heat insulation.

metals other than steel

Windows made from extruded bronze sections have been in use for many years, but are very costly. The same objection applies to stainless steel, which suffers

also from the great difficulty of fabricating it. Aluminium is a material which has been increasingly used since the war, the

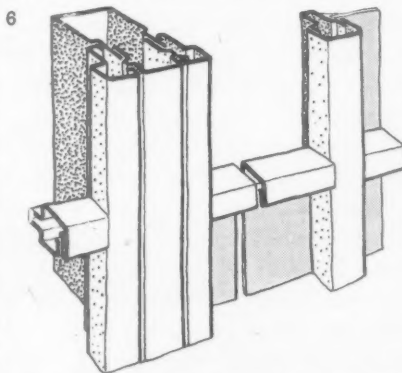


Sash window in aluminium alloy. Chains are used for the counterbalances, and all meeting surfaces are faced with fabric for draught proofing. (Wainwright & Waring.)

extrusion process making it simple to produce sections (hollow if required) which would be difficult or impossible in steel. Corrosion resistance, provided that suitable alloys are used, is very high, and improved welding methods have also been developed.

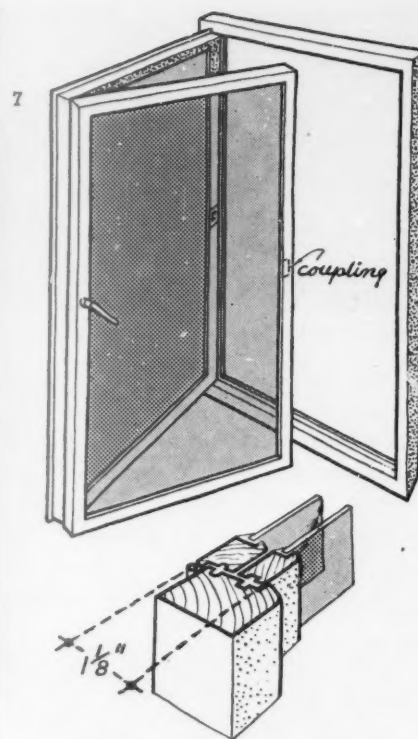
methods of finishing

Both bronze and stainless steel are naturally left untreated. Aluminium may also be left in its natural finish, but may



Galvanized steel and aluminium alloy glazing system at the Bio-Food laboratory, Massachusetts Institute of Technology. (Henry Hope & Sons.)

also be painted, polished or anodized, the latter finish giving greater corrosion resistance. For steel windows several different finishes are permitted by the relevant specifications, but most manufacturers seem to agree that the best is hot dip galvanizing.



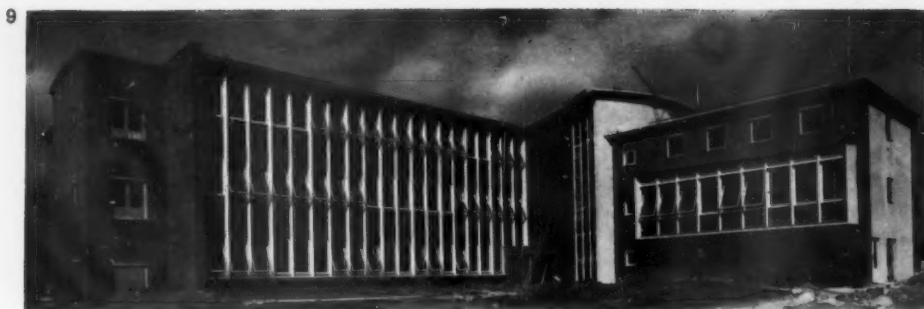
Standardized double-glazed wooden casement. The coupling allows the two halves of the window to be quickly separated for cleaning the inner glass faces. (English Joinery Manufacturers Association.)

double glazing

Double glazing may be needed either for heat or for sound insulation. For heat insulation only, double glazing in a single frame is adequate, or two panes hermetically sealed together during manufacture may be used. For sound insulation the problem is more difficult, and ideally two separate windows should be used, with the inner frame insulated from the building



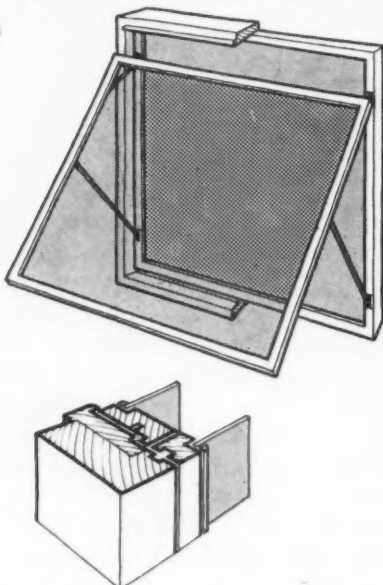
Double-glazed window at Paignton Cottage Hospital: the inner windows slide sideways into the wall cavity. (Crittall Manufacturing Co.)



9 'Carda' windows at I.C.I.'s plastics division laboratories at Welwyn. (Holcon.)

structure and preferably using different sizes and thicknesses of glass in the inner and outer panes. The spacing of the glass is also important. The approximate sound reduction factor for single glazing is 26 db., the figure rising to 38 db. with two thicknesses separated by half-an-inch, and to 42 db. with a separation of 1 inch. Two-

10



The 'Carda' double glazed window, which can also be fitted with venetian blinds in the space between the glass. (Holcon.)

inch spacing increases the figure to 46 db., but thereafter every further inch of spacing has progressively less effect, and it is probably not worth while to increase the spacing beyond 4 inches (50 db.) as an 8-inch space gives a reduction of only just over 52 db.

glass concrete and glass masonry

Hollow pressed glass units are laid in mortar in the same way as bricks, and give good light transmission with insulation against heat loss. Radiused blocks are made for use at corners, and although the blocks are not load bearing they will support their own weight up to a height of 20 feet. Intermediate supports are necessary if the area is more than 120

square feet, but these dimensions can be exceeded for internal partitions.

Glass lenses set in concrete mullions and transoms may be built up to considerable areas and may also incorporate ventilating louvres. Windows may also be built with mullions only, slotted to receive horizontal metal comes which connect

11



'Insulight' double glazed window units at Sighthill Dental Clinic, Edinburgh. Each unit is 103 inches by 77 inches, and has a half inch air space. (Pilkington Bros.)

adjacent panes of glass and transfer the weight to the mullion.

special-purpose windows and gearing

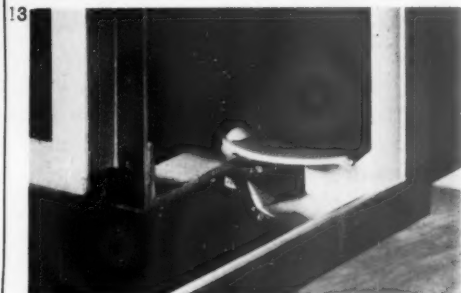
For larders in this country, and for other uses abroad, fly screens are often required, and the control of the window itself is then by special gearing, generally a worm and wheel, so that the window can be opened without leaving any opening through which flies can enter. In hot climates it is also quite a common practice to provide a slatted Venetian blind or adjustable louvres set in the space of a double glazed window and operated either by cords or some form of gearing.

In the larger types of industrial building it is also often necessary to operate long ranges of windows which may be inaccessible or too heavy to work manually. Most window manufacturers have developed their own methods of control, which may be by reduction gearing and a series of linkages or cables, operated either by hand wheels or electric motors. Electro-hydraulic



Louvre window for use in the 'Kynalok' demountable building. (Wainwright & Waring.)

methods are also used, and by careful detail work it is possible to make such installations quite unobtrusive. At the same time such systems are generally irreversible, so that a whole range of windows may be left in any position from fully open to almost shut without any danger of damage by wind.



Friction hinge which allows casement windows to be fitted without a peg stay. Pairs of stainless steel washers are used back to back with serrations to grip the hinge and a smooth rubbing surface. (Henry Hope & Sons.)

WALLS

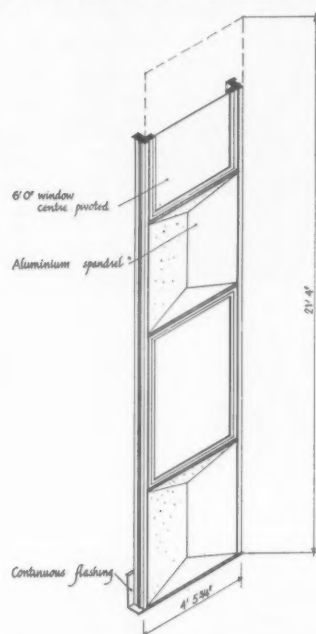
ALUMINIUM CLADDING

Air-conditioning in America is now well on the way to becoming normal practice. This is especially marked in New York in the vast amount of speculative office building that has been undertaken since the end of the war. All of this new space is air-conditioned, and this has given the necessary incentive to its construction while older and still serviceable but non-air-conditioned structures (like the Empire

[continued on page 145]

State Building) still have space to rent. The firm of Emery Roth & Sons has been responsible for over a dozen of those buildings, normally from 20-26 storeys high, and built to secure the maximum floor space allowable by the building codes and zoning laws. These codes are largely responsible for their familiar ziggurat-like form.

At 99, Park Avenue, near to New York's Grand Central Station, the cleanest and most interesting of Roth's buildings was recently finished. Its chief interest lies in its use of prefabricated aluminium panels as a wall covering. This idea was first carried out at Pittsburg in the Alcoa building by Harrison and Abramovitz, which was begun in 1950, but only finished late last year. At 99, Park Avenue, however, the technique has been considerably improved. The whole building is divided vertically (on the façade) into pairs of floors and a flashing runs horizontally along the bottom of each strip. The individual panels run through these two floors and consist of two aluminium styles



99 Park Avenue, detail of wall panel.

to which are fitted two four-faceted spandrels and two aluminium window frames. The sides of the styles are pressed to form an interlocking joint. This assembly was done in the factory and the resulting panels, 21 feet 4 inches by 4 feet 6 inches, and weighing only 100 lbs., were then hoisted into position and bolted to the steel frame by men working from the inside of the building, thus avoiding scaffolding. The spandrels are necessary in



99 Park Avenue, nearing completion.

New York, as the law requires a certain amount of solid wall between windows vertically. They are four-faceted—as are the panels in Pittsburg—for a variety of reasons: partly to give rigidity to the $\frac{1}{8}$ -inch aluminium sheet, partly to express the die-stamping process, partly to allow expansion and movement and partly to give a play of light and shade on the façade.

The erection of the skin was astoundingly fast: the 1,800 panels were fitted by three trained crews in six and a half working days—the anticipated time was 12 days.

The aluminium is finished in a matt grey to avoid glare, except the window frames which are polished. The windows, which are centre pivoted to allow for cleaning, are glazed with green heat absorbing glass. The inner surface of the aluminium is sprayed with an acoustic spray and backed by a 4-inch brick wall as required by New York law.

The significance of this building lies in the great advance in prefabrication which it represents, and in the consequent speed in actual erection. Furthermore, the entire skin of the building theoretically requires no maintenance.

TECHNIQUES

GLASS ENGRAVING

In the United Air Forces Memorial at Runnymede (architect Edward Maufe) is a window which illustrates for the first time a new technique of glass engraving.

The window (executed in $\frac{1}{4}$ -inch plate glass by the London Sandblast Decorative Glass Works) was designed by John Hutton, who here describes the technique:

'The method used is known as wheel engraving or stone cutting. The sheet of glass, with the design traced on its surface, is held by the craftsman over a revolving

sandstone wheel which cuts into the surface to varying depths giving modelling and tone gradation.

'If the results are to be successful the artist must exercise considerable discipline in his design, and should know all about the process. Very great skill is required in the cutting.

'The aim at Runnymede was to obtain a rather transparent ethereal effect with as little interruption of the view through the window as possible. It was the first time the process had been used for this purpose, and some development on traditional methods was necessary.

'The whole of the work, even to such small details as features and fingernails, was cut with grindstones. About two-thirds of the engraved surface was smoothed with a willow wood wheel and polished



Detail of engraved window at Runnymede.

with a revolving brush, so that the play of light on the polished facets and the opaque areas would give the utmost life to the glass.

'I made fully detailed drawings to actual size, in which all the modelling and tone values were completely worked out with a sharp pencil point, for the craftsman is not a designer and can only copy a given design. I also made other keyed drawings of the underlying structure of the figure and of the final effect.

'The method of cutting was discussed with the craftsmen at the beginning, and at various stages, until the intended effect was reached.

'It is a stylized curvilinear art with a strange beauty of its own, and affords

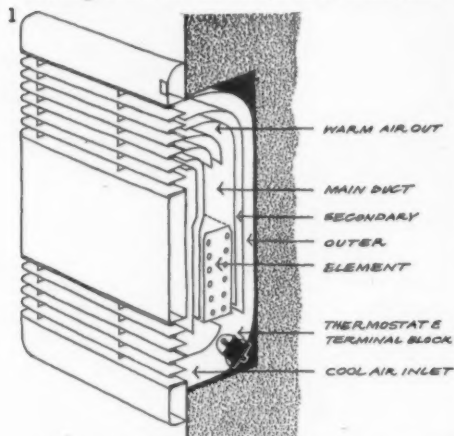
what is, for these times, an unusual example of collaboration between artist and craftsman on a work which is not for mass production.'

HEATING

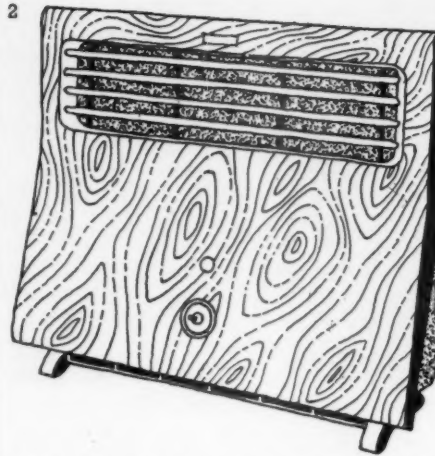
HEATING APPLIANCES

In order to place the most recent additions to Messrs. E. K. Cole's 'Thermovent' Heating units, it is helpful to recall the original patent which this company took out, now some 15 years ago.

This patent related to the ducting of the B. Series Electric spaceheaters, 1. These, which are still on the market, are of the inset type of convector heater, and were originally designed for use in ships' cabins. Two guiding principles ruled over their conception: first, the careful routing of the air currents by means of internal ducts and second, the sharp distinction between convected and radiated heat, and the cutting down of the latter to a minimum.



Granted that the best place for an inset convector heater is often under a window, the problem was how to reduce the height of the fitting without discouraging the flow of air over the element, for the classic solution for encouraging air flow was to place a tall chimney-like duct above on the analogy of the open fire. The solution used here was to narrow the air space round the element to avoid turbulence and to divide the duct space to make three narrow ducts in place of one wide one. A second improvement was to relate the grille itself with the ducts behind it. Previously it had been imagined that the form of the grille made little difference to the air flow. But experience had shown that a slight maladjustment of the grille could have a devastating effect on the efficiency of the heater: not merely by

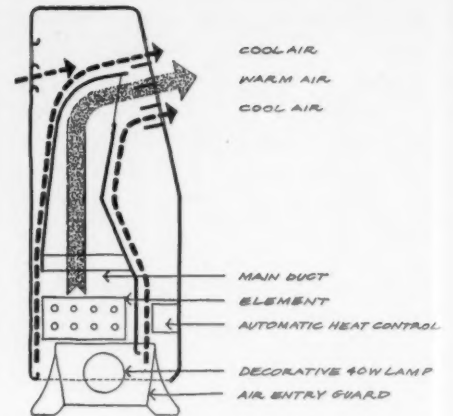


slowing down the air flow, but by diverting currents up the face of the wall—and thus dirtying it—instead of projecting them boldly into the room. The grille, therefore, which was designed originally by Wells Coates, and which is unchanged to this day, was made integral with the fitting. As it is separate and clips on in three parts to the front, architects can have it replaced by something of their own.

The second principle to be applied was the cutting down of heat loss by radiation. This had the practical convenience of making the accessible parts of the fitting cool, but chiefly served to step up the efficiency of the unit *qua* convector: for the less heat given off by radiation the more there is to give off by convection. Here it was achieved by enclosing the elements and the hot air ducts within an outer casing of cool air ducts.

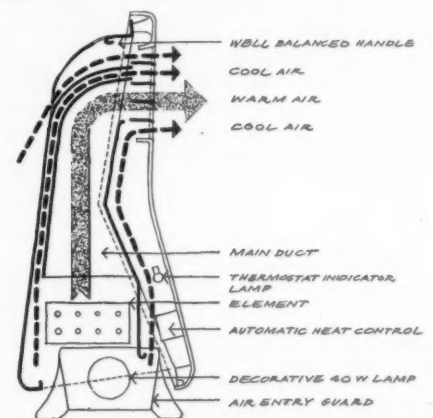


This idea of unmitigated convection has been carried by E. K. Cole into their new ranges of free-standing electric space heaters. These, named the 'S.R.', 2, and the 'F.R.', 3, series respectively, are mechanically the same and differ chiefly in their casings. The 'S.R.' series, which is slightly cheaper, is intended for office use and is



more severe and box-like in appearance, while the 'F.R.' series, which is meant for the home, is veneered and more plastic in form, and has the added refinement of a thermostatic indicator lamp to help the householder to adjust the room temperature to his exact preference. This is a valid difference since in offices the appliance is likely to be left in one place, while in homes it is likely to be moved about and need more frequent adjusting.

Since, with a portable convector, height is no longer critical there is here no call for the multiple ducting and the unit therefore has a single wide duct which is constricted part way up its height. But the other question of unmitigated convection and of coolness in the touchable parts is as important as ever, and the designers have kept to their policy of surrounding the hot air ducts with a cool air flow.



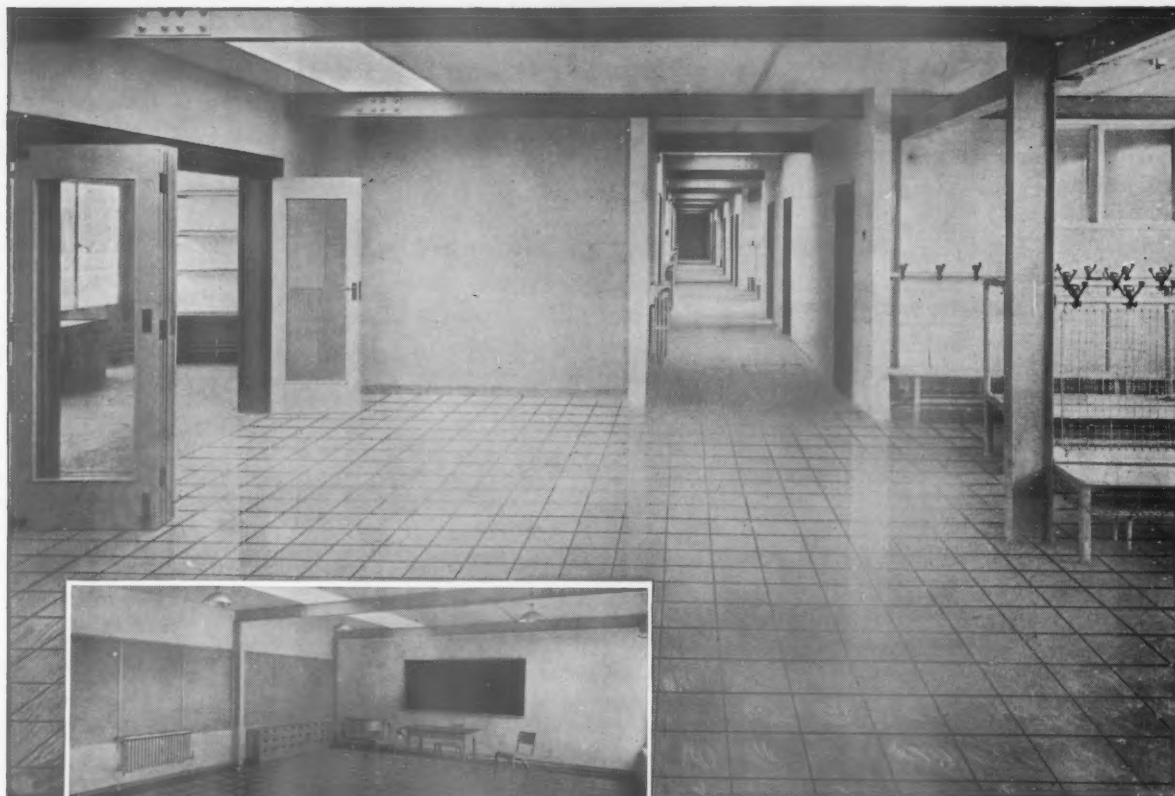
BRITISH STANDARDS

BRITISH STANDARDS

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[continued on page 148]

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continued from page 146]

collaboration and the consent of all interests, ultimate success depends on notice being taken of it: even though the immediate result of this notice may be a general demand for a more exacting standard.

For this reason it is proposed to make a brief mention of such new or revised British Standards as seem to be of significance to architects.

British Standard 2035: 1953. Cast Iron Flanged Pipes and Flanged Fittings.

This is a companion to BS 73: 1938, dealing with cast iron pipes generally, which it partly supersedes. Of particular interest to architects is the important reduction in the number of sizes and fittings.

The number of standard sizes themselves have been reduced from the 35 given in BS 78 to 18. While an even more spectacular reduction has been made through the decision to eliminate unequal crosses. Thus there are now only 18 crosses where, in BS 78, there were 259. As the introduction to the standard points out, this is completely practicable since any reduction in the diameter of the

branches can be obtained by using the reducing pieces included in the standard.

British Standard 690: 1953. Asbestos-cement Slates and Sheets.

This is a revision of BS 690: 1945 and is the first fruits of the manufacturers' decision to co-ordinate their output for interchangeability. But so far, the eliminations are rather meagre, being limited to asbestos-cement slates with chamfered corners—which seem to have gone out of public favour—and to certain variations in the sizes of corrugated sheets. But the hope is expressed that the industry will do better than this, and that before long all makes of both sheets and slating can be rendered interchangeable.

TRADE NOTES

A NEW ASSOCIATION

The formation is announced of the Association of Vermiculite Exfoliators. The Association, which comprises 18 founder companies, aims at establishing and maintaining recognized standards of

quality for the processed material, and codes of practice for all commercial applications. Further, it will encourage and carry out research into the use of Vermiculite. The address of the Association is: Plantation House, London, E.C.3. Tel.: Mansion House 9345.

CHANGE OF ADDRESS

Thermadore (Great Britain) have removed to: 79-80, Petty France, London, S.W.1. Telephone Nos.: Abbey 1060 and 3348.

Correction

In the Design Review feature 'UK Furniture' (AR, December, 1953) the H. K. Troupier Chair and the Pandora 3-Seat Settee were shown in Three Star Covers and the prices should have been £26 2s. 6d. and £57 5s. Also the prices of the mahogany desk and the smaller desk in two units by George Hammer & Co. should have been £32 10s. and £10 15s. for each unit.

CONTRACTORS etc

Hotel at Lusaka, Northern Rhodesia. Architect: G. A. Jellicoe. General contractors: Richard Costain Ltd. Sub-contractors and suppliers: Uni-
[continued on page 150]

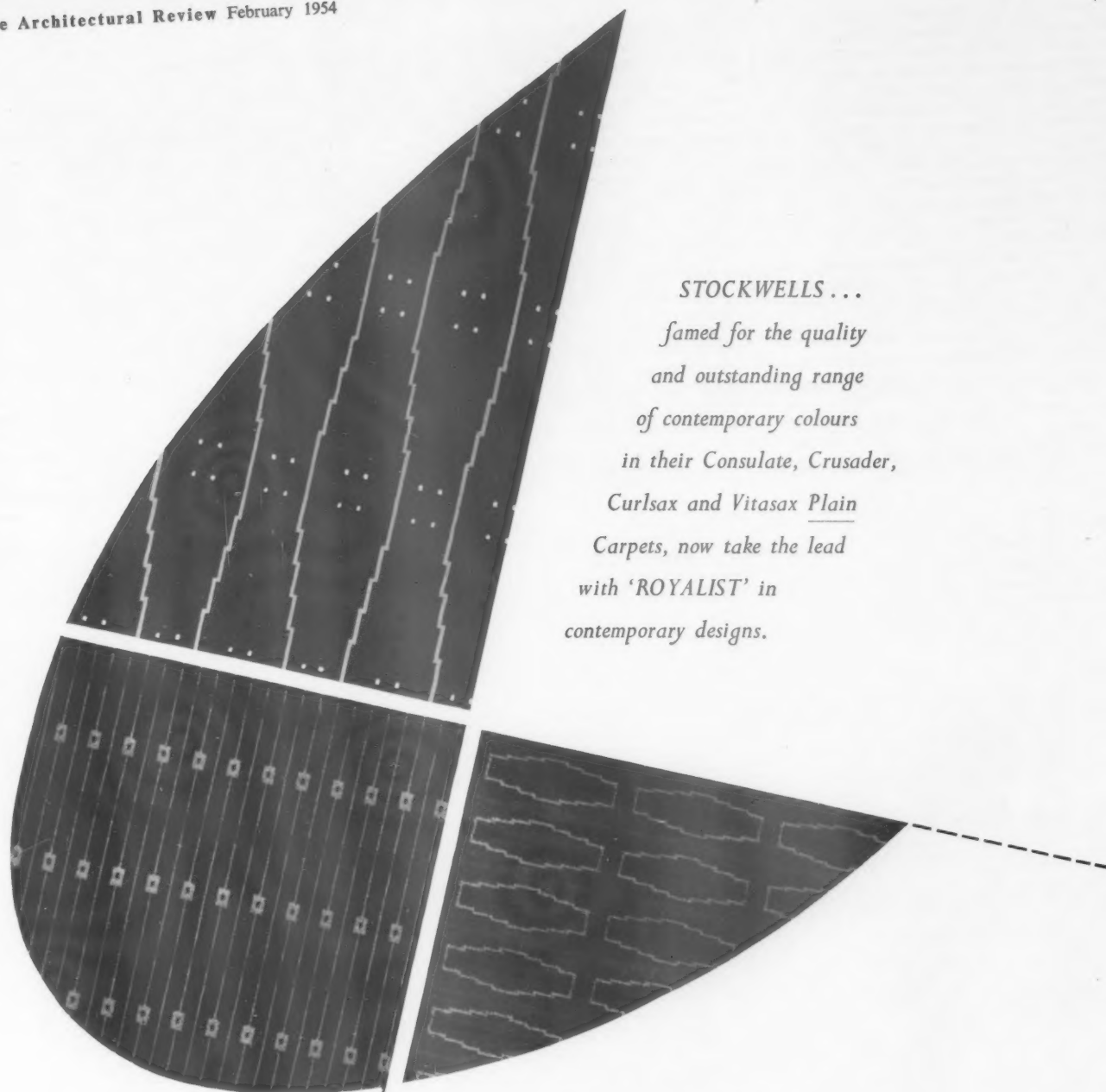


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continued from page 148]

calor stokers: Joshua Bigwood & Son. Acousti-Celotex tiles: Celotex Ltd. Marley floor tiles: Marley Floor Tile Co. Welded horizontal galvanized storage calorifiers (100 gallons): Hartley & Sugden Ltd. 100-gallon galvanized welded M.S. horizontal calorifier: Rother Boiler Co. Pressed steel tank: Braithwaite & Co. Structural Ltd. Equipment for fish room, meat room, general room; bottle coolers for cocktail bar, ballroom bar and service bar; block ice maker; ice cream freezer; ice cream storage; service cabinet for still room: Pressed Steel Co. Water softener plant: Permutit Co. Kitchen equipment: Benham-Booth (Pty.) Ltd. Locks and door furniture: Comyn Ching & Co. (London) Ltd. Electric passenger lifts: Marryat & Scott Ltd. Doors for general food store, meat store and fish store; panels for fish store: Smithfield Refrigerator Co. Spring underfloor system with locking gear: Francis Morton (Spring Floors) Ltd. Valves, thermometers, pressure gauges, etc.: Crane Ltd. Cast iron pipes, etc.: Fraser & Ellis Ltd. Feed pump: Royles Ltd. Pumping units: Worthington-Simpson Ltd. Furniture: Scottish Furniture Mfrs. Light fittings: Troughton & Young Ltd. Fabrics: Tibor Ltd.; David Whitehead Ltd.; Edinburgh Weavers; Donald Brothers Ltd.; Wilson & Glenny Ltd.; Warner & Sons. Carpets: James Templeton & Co. Wallpapers: Cole & Sons; John Line & Sons. Cutlery and plates: Gladwin Ltd. China: Dunn Bennett & Co. Glass: Johnsen & Jorgensen Flint Glass Ltd. Linen: Alexander Eccles Ltd. Blankets: Charles Earley & Co. Pillows: The Puritan Feather Co. Mattresses: The Dunlop Rubber Co. Prints: The Ganymed Press Ltd.

Gramophone Shop in London. Architects: Tayler & Green. General contractors: (Shop front and lettering, small display case, joinery, metalwork (except mezzanine railing), doors, stainless steel skirting, neon lighting and electric light shades):

Courtney, Pope Ltd. Sub-contractors and suppliers: Structural brickwork and plastering: White Bros. White marble flooring to ground floor: Fenning & Co. White glazed frostproof tiling to entrances: Carter & Co. (London). Linoleum to display wall, mezzanine floor and other walls: Catesbys Ltd. Central heating hot water radiators and pipes, ground and mezzanine floors: G. N. Haden & Sons. Hide to mezzanine balcony columns: Connolly Bros. (Curriers). Electrical installation, metal balustrade to mezzanine, glass sign boards to ground and mezzanine floors, display walls and fittings, electric light fittings, painting and decorating: Alfred Imhof Ltd. Electric light fittings to edge of mezzanine balcony: Merchant Adventurers Ltd. Lettering on glass signboards: The Lettering Centre. Glazed flower pots: Liberty & Co. Chairs: Heal & Son. Vitreous enamel on door handles: James Bruton & Sons. Plate glass mirrors: D. W. Price & Son. Light fittings: Troughton & Young. Linoleum to counter front: Catesbys Ltd. Fan to store: Vent Axia Ltd. Venetian blind, first floor office: Venetian Vogue Ltd. Chairs and Lamp Shade (Le Klint): Story & Co. Lamp shade, mats, chair covers, linoleum: Tuttle & Sons.

Cleaners Shop in Lowestoft. Architects: Tayler & Green. General contractors: W. J. Croft Ltd. Sub-contractors and suppliers: Shop front, including stainless steel window frame, vitrolite fascia neon signs and fanlight: Brilliant Neon Ltd. Doors: H. E. Taylor & Co. Electrical installation: Mann Egerton & Co. Metal windows: Crittall Manufacturing Co. Asphalt roof covering: The Limmer & Trinidad Lake Asphalt Co. Sun blind: Dean's Blinds (Putney) Ltd. Marble plinth: Fenning & Co. Door furniture: Dryad Metal Works; Josiah Parkes & Sons. 'Maxheat' electrical tubular heating and thermostats: Unity Heating Ltd. Non-slip porch paving tiles: The Adamite Co.

Glass: Chance Bros. Clothes racking, special cast brass door handle, sanitary fittings: R. J. Pryce & Co. Metal numerals for clothes racking: The Supersine Co. Reinforcement in first floor and lintels: The British Reinforced Concrete Engineering Co. 'Sadia' electric water heater: Aidas Electric Ltd. Time switches: Venner Time Switches.

Private Cinema and Conference Room in Kent House, London. Architect: C. H. Elsom. Assistant Architect: R. Nicholls. Curtain design: Eduardo Paolozzi. Quantity surveyors: Veale & Sanders. General contractors: Yeomans & Partners. Sub-contractors: partitions: Veneercraft Ltd. Central heating: ventilation: Hope's Heating & Engineering Ltd. Electric wiring (bells): Leaf & Carver Ltd. Electric light fixtures (entrance hall): Troughton & Young Ltd. Door furniture (special handles): H. N. Barnes Ltd. Decorative plaster: G. Jackson & Sons. Curtain, printing and block cutting: Elizabeth Taylor; Furniture: S. Hille & Co.; G. B. Kalee Ltd. (cinema seating). Sprinklers: Mather & Platt Ltd. Signs, carpets, cinema equipment: G. B. Kalee Ltd. Photomural: Aerofilms Ltd. Wall veneer: William Mallinson & Sons.

Secondary School at Stanford-le-Hope, Essex, for the Essex County Council. Architect: Gerald Lacoste. Assistant architects: Kenneth Dod and Campbell Ross in association with Harold Conolly, county architect. Consultants: heating and ventilating engineers: Roger Preston & Partners. Structural engineers: W. S. Atkins & Partners. Electrical engineers: Barlow Leslie & Partners. Quantity surveyor: Oswald Parratt. General contractors: E. H. Smith (Croydon) Ltd. Clerk of works: H. Blundell. General foreman: H. Blair. Sub-contractors: asphalt: Chittenden & Simmons Ltd. Concrete blocks, reinforced concrete, artificial [continued on page 152]

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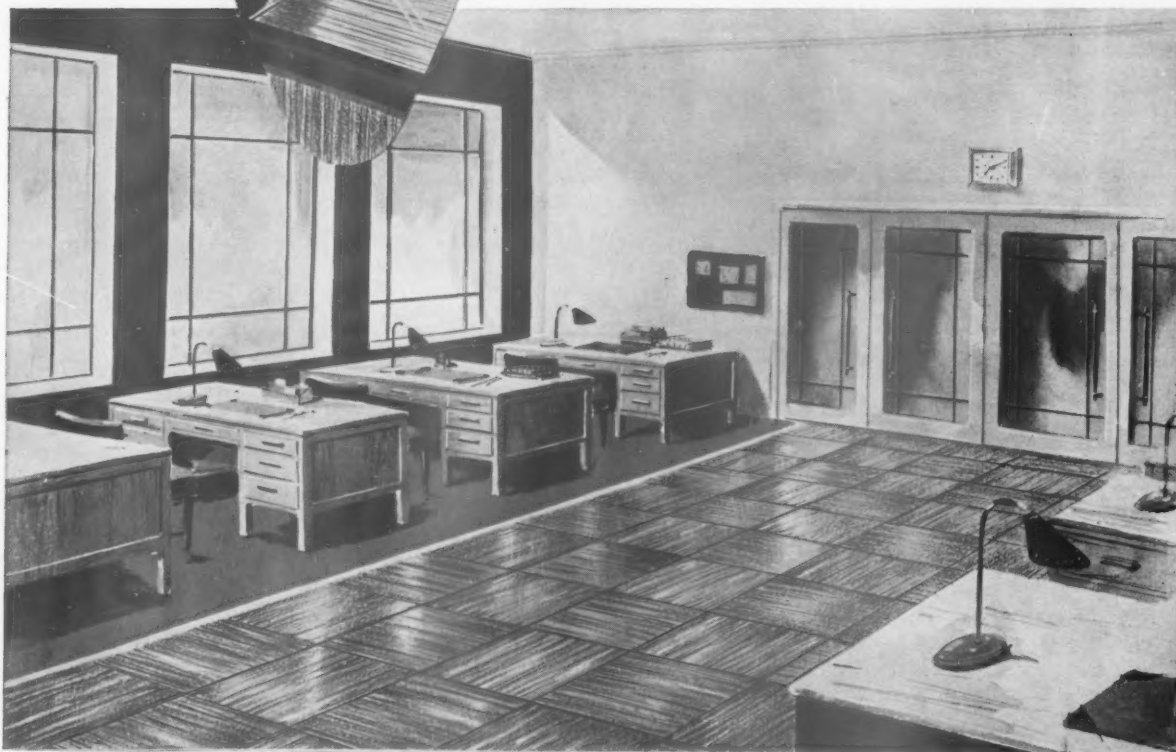
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continued from page 150]

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Research Building, University of Glasgow. Architects: Basil Spence & Partners. Consultants: engineers: Crouch & Hogg. Heating and ventilation: Donald Smith, Seymour & Rooley. Electricity: Sayers & Crum. Acoustics and sound insulation: R. B. Grey. 150-ton sliding slab, heavy doors and

lifts: G. K. Jensen & Co. General contractors: Thaw & Campbell Ltd. Sub-contractors: asphalt: Val de Travers Asphalt Paving Co. Hollow tile floors and encasements: Diespeker & Co. Clay bricks: Messrs. Patterson. Facing bricks: Southhook Potteries. Stone: Thaw & Campbell Ltd.; Bath & Portland Stone Firms Ltd. Terra-cotta: Thaw & Campbell Ltd.; J. W. Howie. Structural steel: Fleming Bros. Fireproof construction, CO₂ installation: Pyrene Ltd. 'Thermotile' roof: D. Anderson & Son. ICI copper roofs: Messrs. Hugh Twaddle. Roofing felt: Andersons Ltd. Glass: National Glass Co. Patent glazing, window furniture: Williams & Williams Ltd. Waterproofing materials: Evode Ltd. Central heating: Steeles Ltd. Convectors and unit heaters: Copperad Ltd. Plumbing and gas fixtures: A. MacDougall Ltd. Electrical wiring, electrical heating: Osborne & Hunter Ltd. Electric shelving and switchboards: Messrs. Younger. Electric light fixtures: Troughton & Young Ltd.; Merchant Adventurers of London Ltd. Ventilation: Steeles Ltd. Sanitary fittings: Shanks & Co.; Adamsez Ltd. (drinking fountains). Stairtreads: Toffolo Jackson Ltd. Pressed metal stairs: Frederick Braby & Co. Door furniture: Bell Donaldson Ltd. Telephones: Siemens Bros. & Co.; G.P.O. Folding gates: Bolton Gate Co. Rolling shutters: Haskins 'Roladors' Ltd. 'Durasteel' fireproof doors: John Cochrane Ltd. Spiral stairs: Walter MacFarlane & Co. Iron staircases, hung stairs: Bell Donaldson Ltd. Revolving doors: John Cochrane Ltd.; William Newman & Sons (glass for revolving doors); Pilkington Bros. Sunblinds: Messrs. Bryden. Pumps: Drysdale Ltd. Plaster: G. Rome Ltd. Railings: Messrs. Ch. Henslow. Joinery: John Cochrane Ltd. Shuttering: Messrs. Laidlaw. Terrazzo and marble: Toffolo Jackson Ltd. Tiling: Messrs. Shaws; Messrs. Johnstones. Wallpapers, signs, decoration and all paintwork: Bowie Fisher Ltd. Furniture: James D. Bennett Ltd. (school fittings); John Cochrane Ltd.; Scottish Furniture Manufacturers

Ltd.; N. Morris Ltd.; Neil Justice (Dundee) Ltd. Shrubs and trees: Sportsworks Ltd. Office fittings: Roneo Ltd.; Pel Ltd. (chairs); Messrs. Watsons (steel bins); 'Stormer' rolling bins: J. Glover. Cloakroom fittings: Bell Donaldson Ltd. Lifts: G. K. Jensen & Co. Lift enclosures: Frederick Braby & Co. Travelling cranes: Wharton Cranes & Hoists Ltd. Clocks: Gent & Co.

Housing at Esher, Surrey. Architect: Eric Lyons. Assistant-in-charge: Geoffrey Scoble. Consultant engineer: Z. Pick. Quantity surveyors: Thomas Barrett, Sons & Partners. General contractors: H. B. Kingston Ltd. General foreman: L. A. French. Sub-contractors: dampcourses: The Ruberoid Co. Concrete blocks: Wadcrete Ltd. (houses only). Reinforced concrete: Smiths Fireproof Floors Ltd. (flats and bungalows only); The Square Grip Reinforcement Co. (Sunbury) Ltd. (bungalows only). Bricks: Marston Valley Brick Co. Frostproof tiles, supplied by Carter & Co. (London) Ltd. (flats and bungalows). Copper roofing, special roofings: Hugh Twaddle. Roofing felt: William Briggs & Sons (flats and bungalows). Mastic asphalt flooring: Highways Construction Ltd. Back-boilers and grates: Newton Chambers Ltd. Electric wiring: Langston Jones Ltd. Electric light fixtures: The Merchant Adventurers of London Ltd. (flats and bungalows); Simplex Ltd. (flats). Sanitary fittings: Fred Hodge Ltd. Door furniture: Stedall & Co. Wood casements: H. Newsum, Sons & Co.; Boulton & Paul Ltd. (flats and bungalows). Metal casements: Gardiner, Sons & Co. (flats). Revolving doors: S. G. Day (flats). Distemper and paints: ICI Ltd.; Silixine Ltd. (houses); George Lillington & Co. (houses). Metalwork: S. G. Day (flats and houses). Kitchen fittings: Built-in Fixtures Ltd. Wallpapers: The Wallpaper Manufacturers Ltd. (flats). Fireplace surrounds: W. N. Froy & Sons (flats). Signs (house numerals): The Lettering Centre Ltd.



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